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SEE PAGE 51 FOR ALPHABETICAL INDEX

SEE PAGE 52 FOR CLASSIFIED INDEX

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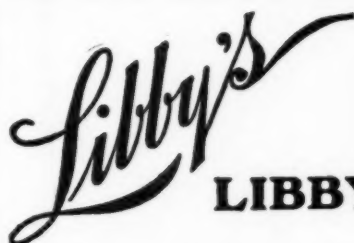
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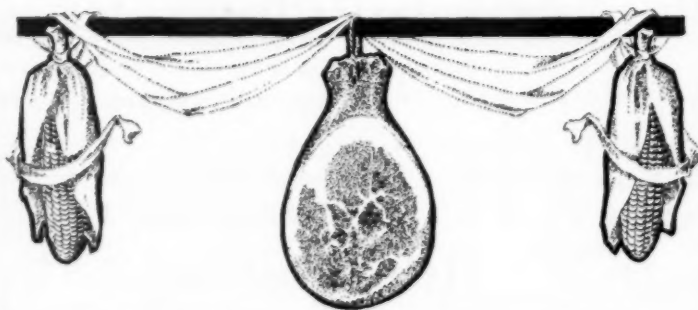
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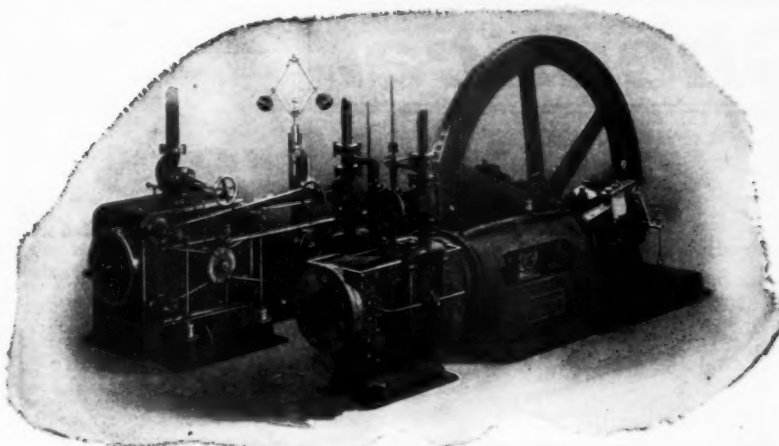
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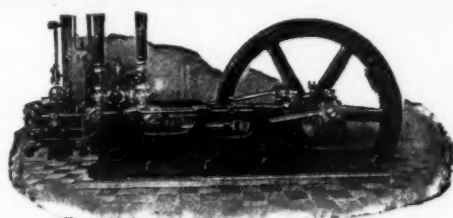
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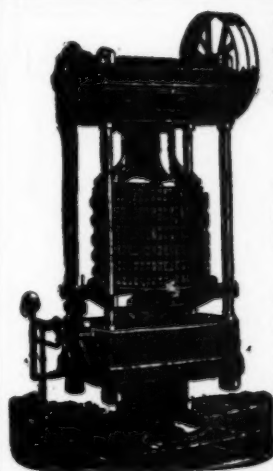
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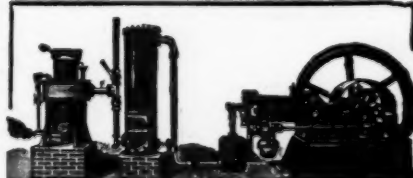
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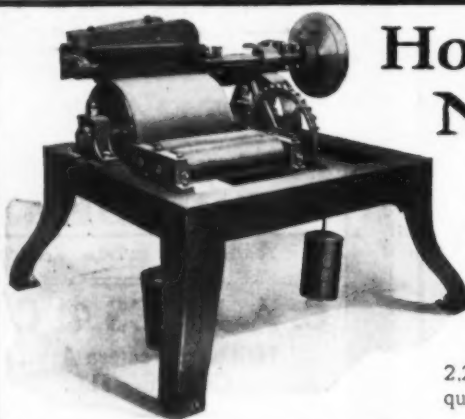
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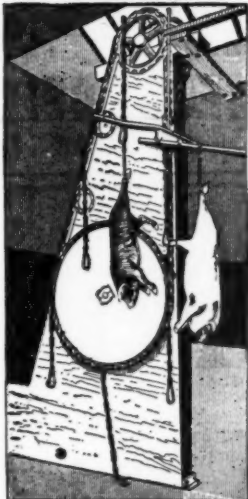
Eleven Hours of Afternoon.....Cy. Warman
The Americanization of Paris,.....Alexander Hume Ford
Summer in Winter.....Minot J. Savage
Where Blue Met Grey—Poem,.....Thomas C. Harbaugh
Some Animal Models.....Julia D. Cowles
Where Every Prospect Pleases.....Kirk Munroe
New England Witchcraft.....M. Inlay Taylor
Time Defying Temples.....Allen Day
New York From An Air Ship.....Bertha Smith
A King on American Soil.....T. D. MacGregor
New Zealand.....T. E. Donne
The Limited Express—Poem.....Nixon Waterman
Tent-life.....Sir Edwin Arnold
The Nub End of Canada.....Frank Yeigh
Corral and Lasso.....Missie J. Reynolds
Santo Domingo.....Frederick A. Ober

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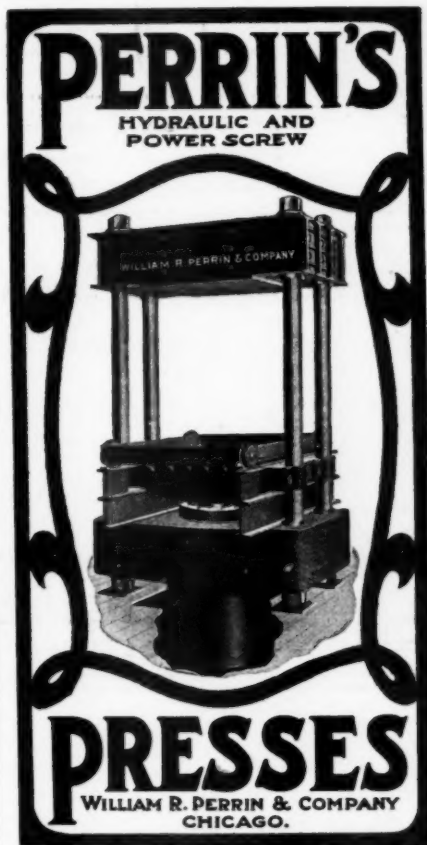
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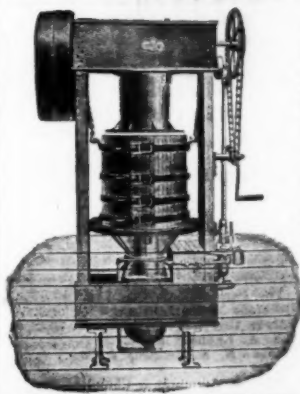
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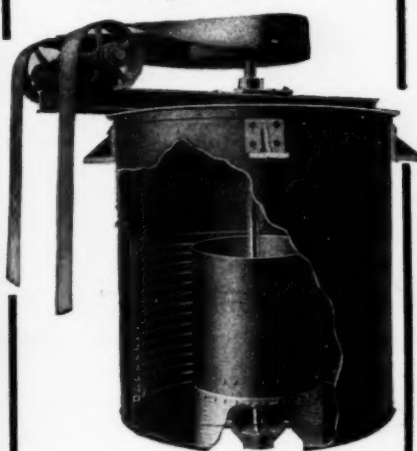
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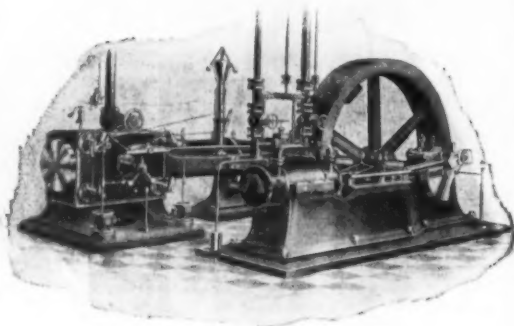
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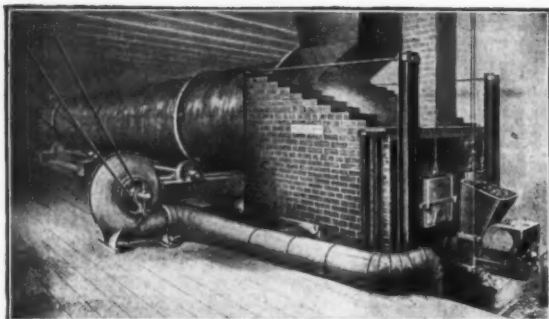
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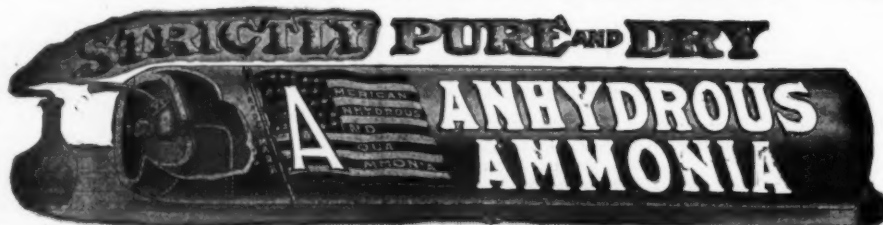
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Vol. XXXIII.

New York and Chicago, July 22, 1905.

No. 4.

DISASTROUS FIRE.

The packing house of the Arbogast & Bastian Company at Allentown, Pa., was destroyed by fire Friday night of last week. The loss is estimated at \$400,000 with insurance of \$200,000. One hundred and fifty men are thrown out of employment by the fire. At the same time the slaughter house of E. A. Krause was completely destroyed. Loss, \$11,000; insurance, \$10,000.

KANSAS LIVE STOCK.

Reports from Topeka, Kan., state that there has been an increase of 90,000 in the number of live stock in Kansas in the last year, according to reports made to the Auditor of State by the county assessors.

Cattle have decreased 6,000 and sheep 2,000, but hogs have increased about 50,000. The number of cattle reported this year is 3,179,500; sheep, 200,239; hogs, 1,190,325.

U. S. LEATHER COMPANY REPORT.

Interest attaches to the report of the United States Leather Company, which was taken over by the Central Leather Company, for the year ended December 31, 1904. Profits on sales for the year show an increase over 1903 of \$627,524 and profits on manufacture show an increase of \$67,173. The total receipts for the year were \$4,928,862, as compared with \$4,830,834 for 1903, showing an increase of \$98,028.

SEND-OFF FOR PACKER.

Herman Loewenstein, of the Cincinnati Abattoir Company, was recently the recipient of a splendid testimonial at the hands of the Cincinnati packers. Mr. Loewenstein has left for a four months' trip through Europe. After leaving the floor of 'Change he was taken to Dove Brand Hall, in the West End, by his partner, General Michael Ryan, where he supposed he went to inspect some electrical machinery. When he arrived he found an elegant banquet spread in his honor. Those present were General Michael Ryan, Joseph Ryan, Benjamin and Daniel Loewenstein, George Zehler, Charles, Joseph and John Roth, John Hoffmann, Oscar Hoffmann and "Big John" Hoffmann, A. Sander, Jacob Vogel, Jr., Fred Schroth, Jacob Lohrey, Clarence Meyer, John Maescher, C. B. Murray and M. D. Thompson. He was presented with an elegant alligator skin traveling case. The event was one of the pleasantest events that have occurred recently in Cincinnati packing circles.

FILE ANSWERS IN LAND CASE.

Answers were filed this week by the defendants in the case of Jackson County against the packing companies, a suit brought by the county to oust the defendant companies from lands alleged to have been taken by them without legal right. The lands in question are new lands which the defendants hold along the Missouri River, near Kansas City, alleging they were formed by sediment washed by the river on the property owned by them. The county claims the land is "made land" and the defendant company has no right to it and no valid title by which they can hold it. The suit was filed several months ago.

TESTIMONIAL TO ALLISON.

A testimonial was tendered to Alexander Allison, former president of the Memphis Merchants' Exchange at Memphis recently, by his friends in that organization. It consisted of a beautiful chest of silver and a silver water pitcher filled with flowers. The presentation speech was made by Harry P. Johnson, president of the exchange, at a banquet in the Peabody Hotel. The occasion was the departure of Mr. Allison from Memphis for Jackson, Miss., where he has been elected president of the Mississippi Cotton Oil Co. He has been vice-president of the Tennessee Cotton Oil Co. for a number of years, and the promotion is a deserved one.

CATTLEMEN INDICTED

A dispatch from Kansas City says: The Grand Jury returned indictments against William A. Towers, a prominent cattleman, on a charge of fraud. Indictments were also returned against Carl H. Rightmire, Bruce Reichelder and Charles Wiggins, weighmasters at the Kansas City Stock Yards. Mr. Towers, it is alleged in the indictment, borrowed \$30,000 from a Kansas City brokerage firm on a herd of 2,000 cattle in Bent County, Col., which, it is charged, he had already mortgaged. It is also charged that the herd did not contain 2,000 cattle. The weighmasters are accused of conspiring with certain traders to defraud cattle dealers through

a system of underweights and overweights by which considerable money was secured. Among the traders who so conspired with the weighmasters, it is alleged in the indictment, were Cyrus Van, J. J. Miller, Henry Nichols, A. J. Judy, and George M. Wright, partners under the firm name of Van & Wright. William A. Towers is one of the best known cattlemen in the Southwest. He was the partner of George M. Casey, who was owner of the greatest herd of Hereford cattle in this country when he died a year ago, following a failure involving liabilities of several hundred thousand dollars and which created a sensation at the time.

SHOW FOR DENVER

There is about to be peace in the live stock trade at Denver. The warring elements of the National Live Stock and the American Cattle Growers' associations will combine once more in a monster stock show for Denver and it is the hope of the promoters that by the time the show is given peace will reign once more over one united stock organization for the West.

The Denver stock show will be held in Denver some time in the latter part of January or the first of February, 1906. It will be for breeders, fat stock and for feeders. It will include horses, cattle, sheep and hogs and will be such an exhibition as has never before been seen west of Chicago.

The movement was started by the Colorado State Horse and Cattle Growers' Association, and at a meeting held at the Union stock yards the Fat Stock and Feeders' Annual Show Association was organized.

This association will manage the affairs of the show and will make it an annual event.

J. H. Guinn, of the National Live Stock Association addressed the meeting and stated that if the association would take in the cattle growers of the Southwest and Northwest the National would finance the proposition, and in addition to this would hold the annual convention of their organization during the show, so that a good attendance would be guaranteed. This proposition will be taken under advisement by a committee of nine, who were named by Elias Ammons, chairman of the meeting, and who will draw up the plans of the new organization. This committee consists of Elias Ammons, J. P. Adams, Henry Gebhardt, Harry Petrie, Eugene Grubb, J. A. Johnson, James McKee, I. N. Moberly and A. J. Campion. This committee will make a complete report on the proposed show at a meeting to be held to-day.

DEMAND RECIPROCAL TREATIES

The rising tide of discrimination on the part of European nations against American exports appears to be creating an industrial revolution in this country. Within the last few days a call has gone out for a national convention, to be held in Chicago on August 15, under the auspices of the Chicago Board of Trade, the Chicago Commercial Association, the Illinois Manufacturers' Association, the Millers' National Federation, the National Association of Agricultural Implements and Vehicle Manufacturers, the National Live Stock Association, the National Live Stock Exchange and the American Short Horn Breeders' Association. This convention is to discuss ways and means of persuading the President and Congress to take such action as will preserve for American exporters the open door to the markets of the world. The call for this convention is not the result of any momentary impulse. It is the natural corollary of the action taken by scores of independent associations of manufacturers, live stock men, farmers, etc., during the past six months.

When Germany adopted her new tariff in December, 1902, people in this country were inclined to make light of it. They did not believe that the German government would actually put into force a tariff which could have no other effect than to bar out of the Fatherland the products of every other country in the world. Since then, however, Germany has signed treaties with Russia, Italy, Belgium, Roumania, Switzerland, Servia and Austria-Hungary, whereby these countries secure preferential terms amounting in some instances to hundreds per cent. Bad as this state of affairs would be for this country, it is not all, for the action taken by Germany has been, or at least is about to be, followed by Austria-Hungary and is similar to that taken by France in 1903 and by Switzerland in 1902. While, if Mr. Chamberlain's plans go through, England will close her doors as tightly to our products as we have already closed ours to her. The cumulative effect of these restrictive tariffs, admittedly intended to bar American products from European markets, has been a concerted movement throughout the country in favor of different trade relations.

The National Live Stock Association at its national convention in Denver in January started the ball rolling by a strong resolution in favor of reciprocity. That action has been followed by similar resolutions adopted by the Interstate Cotton Seed Crushers' convention, the Georgia Industrial Association, the National Association of Manufacturers, the Georgia Cotton Seed Crushers' Association, the Chicago Board of Trade, the Merchants' Association of New York, the American Live Stock Association, the Cattle Raisers' Association of Texas, the Illinois Manufacturers' Association and the Chicago Commercial Association.

Just what action the Chicago convention will ask Congress to take is a matter of doubt. It is probable, however, that a national association will be formed, having for its object the promotion of some scheme for the real "Protection" of our foreign markets. Whether another attempt to persuade the Senate to approve reciprocity treaties or whether a scheme of maximum and minimum tariffs will be adopted the future alone can tell.

President Roosevelt recently discussed the matter with Frank Hagenbarth, president of the National Live Stock Association, and asked him what he would propose as a solution of the present difficulties. "Reciprocity or retaliation," responded Mr. Hagenbarth. "Reciprocity and retaliation," retorted the President, thereby indicating his personal ideas in the matter.

That something must be done is obvious when one considers the new German tariff, even without taking into account the tariffs instituted by other countries. The German policy has been to adopt new schedules very much higher than those under the old law, but these she has modified by special treaties with certain powers and has unofficially but most unmistakably indicated her desire to negotiate such a treaty with the United States.

At the present time Germany is the largest customer this country possesses save England. In 1903 she purchased \$194,000,000 worth of goods from this country. Of this amount approximately 40 per cent was live stock and meat products. The remainder included cotton seed oil, machinery, some cotton goods and, indeed, a little of everything manufactured in the country. The new German tariff that goes into effect in March of next year, placed a duty of \$1.42 on rough lumber, but reduces this to 47c. in the case of those powers who have made treaties with her.

Similar differences exist with regard to all kinds of metal manufactures, manufactures of leather, machinery, agricultural, forest and animal products and textiles. The result will be that the sixty or seventy millions dollars' worth of food products now sent there will have to remain in this country, while probably at least 50 per cent of our other exports to Germany will also have to find another market. The loss of trade in Germany will, of course, be serious to the industries directly affected, but it will be little less serious to the whole country, for if the live stock man who has been dependent on Germany to consume his cattle, finds himself unable to sell his surplus animals, he will be unable to purchase cotton from the southern fields, shoes from Massachusetts or iron goods from Alabama.

It is expected that the Chicago convention will be very largely attended, and it is hoped that the discussion will be full and free and lead to some radical and successful action being taken to persuade the President and Congress to act promptly in taking such steps as may be necessary to preserve our large and, until recently, growing foreign trade.

MERCHANTS' ASSOCIATION CALL.

The Merchants' Association of New York has addressed a strong letter on the subject of the reciprocal treaties to the principal merchants, manufacturers and producers throughout the United States. This is supplemented with official resolutions, and both are as follows:

New York, July 14, 1905.

Important changes have taken, or are about to take place, in the tariff systems of nearly all the Continental nations of Europe which have adopted, or have under contemplation the adoption of, high protective tariff duties

on imports. Besides this very marked increase in tariff duties adopted by European countries, most of these nations have adopted a dual tariff system, under which they apply a maximum or general tariff on ordinary imports, and minimum, separate, or conventional tariff duties to those nations which make reciprocal concessions in their rates of duty, the difference in the two rates of duty, of the maximum and the minimum tariff, respectively, running from 15% to 75%.

The result of these new tariff systems adopted by the countries of Europe will be most disastrous upon the export trade of the United States. In addition to the high and prohibitive rates of duty imposed upon imports from the United States our products will meet with the severe competition of other nations to whom the minimum tariff rates are conceded.

The very serious situation that confronts the export trade of the United States to Europe will be realized when it is considered that our total exports to Europe during the fiscal year 1904 exceeded the sum of one billion fifty-seven million dollars, which was more than two-thirds of our total exports. The United Kingdom, which receives more than half of these exports to Europe, under its present tariff system will offer no barriers to our trade unless the agitation conducted by Mr. Chamberlain should be successful. Germany (after the United Kingdom our best customer), which receives \$215,000,000 of our exports, France \$65,000,000, Italy \$35,000,000, and Switzerland, Russia, Austro-Hungary, and minor countries of the Continent, will bar many of our exports through the imposition of these high rates of duty.

Our principal articles of export to the Continent of Europe are the following:

Wheat, rye, oats, barley, corn, wheat flour, malt, potatoes, hops, dried apples, pears, apricots, peaches and prunes; fresh apples, sausages, lard, salted meats, butter, cheese, fresh and canned beef, canned salmon, tobacco, eggs, oleomargarine, wood alcohol, cows and oxen, horses, hogs, cotton, shoes, lumber, rough; sewing machines, leather, electrical machinery, machine tools, telegraph instruments, telephones, electric lighting and power apparatus, railways and street cars, motor cars and motor bicycles, machinery of various kinds, typewriters, naval stores, agricultural implements, petroleum, oils.

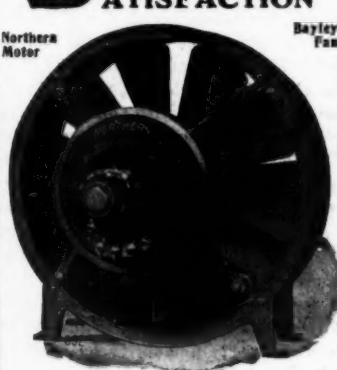
All of these articles will be seriously af-

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Madison, Wis., U. S. A.

fectured by the proposed tariff changes in most of these Continental countries.

The new tariff system of the Empire of Germany, which goes into effect during the first half of the year 1906, not only doubles many of the rates of duty upon our chief articles of export, but also by the reciprocal treaties entered into by Germany with a number of European nations will place us at a still greater disadvantage.

The same condition will shortly meet us in Austro-Hungary, where the proposed new tariff is expected shortly to be adopted. As an instance of the disastrous effect of these new high tariff rates of duty upon the exports from the United States, it is sufficient to mention the article of cottonseed oil, the duty upon which will be quadrupled, which will destroy our cottonseed oil export trade to that country.

Russia raised her rates of duty on our exports from 50% to 100% in 1901 in retaliation for the countervailing duty imposed by the United States on Russian sugar and has now adopted a maximum tariff which increases these retaliatory rates of duty, and which will no doubt entirely check our export trade with that country. Our total exports to Russia in 1904 were \$31,200,000 as against imports of \$2,200,000.

The Republic of France after the passage of the McKinley Act adopted a high protective maximum tariff and a minimum tariff with the result that during the last six years our exports to France have shown no increase except in a few limited articles on which France gave the United States reductions in duties in exchange for certain slight reductions granted by the United States under Section 3 of the Dingley Act, and it is noteworthy that our exports to France covered by this reciprocal agreement have increased from 1898 to 1903 by 46%.

Italy granted us reductions under her minimum tariff on a limited number of exports with the same result as in the case of France, namely, that our exports of the few articles on which Italy grants us her minimum rates have shown a very large increase, whereas our exports of such articles as are subject to the maximum rates have not increased materially.

In Switzerland, which Republic has always been a good customer of the United States, we shall be subjected to the maximum rates of duty under the new Swiss tariff shortly to be put in force.

The Merchants' Association of New York, after carefully considering the conditions with which our trade is threatened, have adopted the subjoined resolutions, which we commend to your serious consideration.

It appears to us that the time has now come when the United States should adopt a policy of reciprocal trade agreements, in accordance with the last words of ex-President McKinley, for the purpose of preserving and extending our export trade and gaining more outlets for our growing agricultural and manufacturing products.

With this end in view we should seek to establish reciprocal trade relations not only with the countries of Europe, but also with our immediate neighbors on the North and on the South.

The most striking illustration of the benefits that follow the cultivation of better trade relations by reciprocal tariff reductions can be witnessed in the extraordinary growth of our exports to the Island of Cuba, which, it is estimated by the Bureau of Statistics of the Department of Commerce and Labor, will during the fiscal year ending June 30, 1905, reach the total of \$38,000,000, showing a very large increase as compared with the previous fiscal year, and a much larger increase as compared with the fiscal year immediately antedating the reciprocity convention with Cuba. The fact also is significant that, whereas our imports from Cuba have increased 33%, our exports to Cuba have gained 80% since reciprocity was adopted.

The business interests of the United States should take prompt and active steps, both collectively through their trade organizations and individually, to impress upon the

President of the United States and his advisors the important necessity that exists for the negotiation of Reciprocity Treaties with our neighbors and our principal customers abroad, and to urge upon Senators and Representatives in Congress that such reciprocity treaties should promptly be ratified, in order to preserve our present trade and enlarge it. When once lost or taken from us it cannot be recovered except with great difficulty.

We trust that we may count upon your co-operation in this movement and would ask you to inform the Merchants' Association of New York of any action that you take. We would also ask you to forward copies to us of any letters that you may send to, or receive from, public officials whom you address on the subject.

Yours very truly,

Committee on Reciprocity Treaties The Merchants' Association of New York, by

JOHN C. EAMES,

Chairman.

Messrs. John C. Eames, Gustav H. Schwab, Edward D. Page, Daniel P. Morse, E. H. Outerbridge, Committee on Reciprocity Treaties.

The following preambles and resolutions were unanimously adopted by the Board of Directors of The Merchants' Association of New York at their meeting on June 8, 1905:

"Whereas, The principal nations of Continental Europe, following the example of the United States, have adopted or are about to adopt high tariff rates of duty on many products of the soil and of manufacture, the imposition of which on the products of the United States cannot fail to most injuriously affect the welfare of the varied interests of this country; and

"Whereas, These European countries have also adopted or have in contemplation a system of preferential tariff rates of duty to be accorded to those nations that are willing to offer similar reciprocal reductions in their rates of duty which would enable countries so favored to underbid our products in European markets; now, therefore, be it

"Resolved, That the Merchants' Association of New York heartily favors the conclusion of reciprocal treaties of commerce between the United States and these European countries by which an enlarged trade and extended markets for our products may be secured; and be it further

"Resolved, That a committee of five be appointed by the president, which committee shall urge upon the Government of the United States, and upon the Congress of the United States, the importance of the adoption of such reciprocity treaties, and shall place itself in communication with all commercial and agricultural associations or bodies throughout the United States for the

purpose of soliciting their co-operation in securing the conclusion and ratification of such commercial treaties of reciprocity."

FEDERAL EXPERTS TO ATTEND.

Washington, July 17.—The Government is beginning to manifest an interest in the National Reciprocity Conference to be held at Chicago August 15 and 16. This is especially true of the Department of Agriculture and Commerce and Labor.

Without committing themselves upon the merits of the contention involved in the reciprocity question, both Secretary Wilson and Secretary Metcalf will have representatives at the conference in the persons of their principal experts on live stock, agriculture, tariff, statistics, and foreign trade. Secretary Metcalf will probably attend and deliver an address.

A pressing invitation will be extended to President Roosevelt, in the name of the agricultural, live stock and meat producing interests of the country to attend the conference, and it is hoped that if he finds it impossible to accept he will send a letter expressing his views on the general subject of reciprocity.

CUDAHY ADDRESSES CONGRESSMEN.

A dispatch from Sioux City, Ia., says the Cudahy Packing Company has sent urgent letters to Congressmen asking them to attend the National Reciprocity Congress at Chicago August 15 and 16, and to work next fall for reciprocity treaties.

It is stated by the Cudahy Company that if Germany, France and Australia carry out their threats to adopt retaliatory tariffs it will cut in two the export meat business here. It is learned that the other packers are wholly in sympathy with the Cudahy Company's position. In a letter to Congressman Hubbard, of this district, the Cudahy Company says:

"These countries seem determined by high duties and all sorts of restrictive legislation to prevent expansion of the export branch of our meat trade and to curtail it in every way possible, and we fear that unless action is taken this fall, when negotiations for new commercial treaties will be made with Germany, we will be barred from the markets of Europe, except for cotton, which Germany must have from this country.

THE BOLL WEEVIL FIGHT

Professor W. D. Hunter, an attache of the Department of Agriculture at Washington, has arrived in New Orleans to confer with Dr. I. M. Cline, who is in charge of the local office of the Weather Bureau, regarding the issuance and publication of maps which will show that part of the cotton country affected by the boll weevil, and from time to time the spread of the evil in the cotton growing States.

Mr. Hunter is in charge of the experimental work the Government is doing in connection with the boll weevil pest in the cotton crop. The first will be published in about two weeks, and from week to week thereafter the spread of the pest will be marked with something like definite boundaries.

Altogether the Government has seventeen experimental stations. Fifteen of these are in Texas and two are in Louisiana.

Mr. Hunter explained that the experimental work carried on was mostly in culture. So far, he said, the burning of the old weevil-infested stalks in the fall, the planting of early varieties of cotton and fertilizing so as to make the crop mature as early as possible, had been found to be the best methods of combating the weevil. It is too early yet for the pest to spread. It does its most damage from the middle of August to the middle of September, and as a result cotton which matures before the middle of August is much safer from the influences of the pest than that which matures at a later date.

Dr. S. A. Knapp is in charge of the propaganda work which the experiment stations develop, and whenever anything new pertaining to the weevil is discovered it is immediately made public by Dr. Knapp, this being done for the benefit of the planters.

Text Books

Semi-Annual Sale

PACKINGHOUSE.

Name of Book.	Publishers' Price.	Our Price.
Douglas Encyclopedia of Packinghouse Products.....	\$2.50	\$2.50
Manufacture of Sausages. By J. C. Duff, S. B.....	2.00	1.50
Fork Packers' Handbook.....	10.00	4.00
Public Abattoirs and Cattle Markets. By Dr. Oscar Schwarz.....	6.00	4.00
Disinfection and the Preservation of Food, Together with an account of the Chemical Substances Used as Antiseptics and Preservatives. By Samuel Rideal, D. S.....	4.00	3.75

RETAIL BUTCHERS.

Thirty Years a Marketman. By E. L. Grant.....	\$1.50	\$1.35
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COTTONSEED PRODUCTS.

Cottonseed Products. By L. L. Lamborn.....	\$3.00	\$3.00
Manufacture of Cottonseed Oil.....	3.00	1.50
Cotton and Cotton Oil. By D. A. Tompkins.....	7.50	7.00

FATS, OILS, SOAPS, CANDLES, GREASES.

American Soaps. By H. Gathmann.....	\$15.00	\$13.50
Animal Fats and Oils. By L. E. Andes.....	4.00	4.00
Animal and Vegetable Fixed Oils, Fat, Butters and Waxes. By C. R. A. Wright, D. S.....	7.15	7.15
Art of Soap Making. By A. Watt.....	3.00	2.80
Fats and Oils, Animal and Vegetable. Edited by W. T. Braunt.....	10.00	0.75
Oil Chemists' Handbook. By Erasmus Hopkins, M. A.....	3.00	2.80
Oil, Tallow and Greases, Practical Compounding. By Expert Oil Refiner.....	3.50	3.35
Recipes for Oil, Soap and Other Trades. By an Analytical Chemist.....	3.50	3.35
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GLUE AND GELATINE.

Glue and Glue Testing. By S. Rideal, D. S.....	\$4.00	\$4.00
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FERTILIZERS.

Bone Products and Manures. By Thomas Lambert.....	\$3.00	\$3.00
Chemistry of Soils and Fertilizers. By Harry Snyder.....	1.50	1.50

REFRIGERATION.

Ammonia and Its Compounds. By C. Vicent.....	\$2.00	\$2.00
Artificial Ice, Spon's Encyclopedia.....	.75	.75
Chemists' Pocketbook.....	2.00	1.75
Compound of Mechanical Refrigeration. By J. E. Siebel.....	3.00	2.90
Indicating the Refrigerating Machine. By Gardner T. Voorhees.....	1.00	.95
Ice-Making Machine, The. By M. Ledoux.....	.50	.50
Machinery for Refrigeration. By Norman Selfe.....	2.50	2.40
Mechanical Refrigeration. By Hal Williams.....	2.25	2.15
Pocketbook of Refrigeration and Ice-Making. By A. J. Wallis-Taylor.....	1.50	1.40
Principles and Practices of Artificial Ice-Making and Refrigeration. By Louis M. Schmidt.....	2.50	2.25
Refrigerating and Ice-Making Machinery. By A. J. Wallis-Taylor.....	3.00	2.80
Refrigerating Machinery. By A. Ritchie Leask.....	2.00	1.75
Refrigerating Memoranda. By John Levey.....	.75	.75
Refrigeration and Cold Storage and Ice Making. By A. J. Wallis-Taylor.....	4.50	4.25
Theoretical and Practical Ammonia Refrigeration. By I. I. Redwood.....	1.00	.50

MECHANICAL.

Complete Practical Machinist. By Joshua Rose.....	\$2.50	\$2.40
Electrical Engineers' Pocketbook. By Horatio A. Foster.....	5.00	4.75
Gas Engine, The. By D. Clerk (new edition).....	4.00	3.65
Gas Engine, The. By F. R. Hutton.....	5.00	4.60
Gas Engines. By T. M. Goodeve.....	1.00	.95
Gas Engines. By E. W. Roberts.....	1.50	1.45
Gas, Gasoline and Oil Engines. By Gardner D. Hiscox.....	2.50	2.40
Manual of the Steam Engine. By R. H. Thurston.....	10.00	9.50
Steam Boilers. By Cecil H. Peabody and E. F. Miller.....	4.00	3.75
Steam Boiler Practice. By W. B. Snow, S. B.....	3.00	2.80
Steam Engineers' and Electricians' Handbook. By Swingle.....	2.50	2.40
Text Book of Electrical Machinery. By Harris J. Ryan, M. E.....	2.50	2.35

MISCELLANEOUS.

Cyclopedia of Receipts, Notes and Queries. By Albert A. Hopkins.....	\$5.00	\$4.50
Liquid Air and Liquefaction of Gases. By T. O. Sloane.....	2.50	2.50
Manufacture of Varnish and Linseed Oil.....	5.00	2.50
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JUNE EXPORTS

Following were the comparative exports for June, of provisions, etc., as reported by the Bureau of Statistics, Department of Commerce and Labor:

Cattle.—June, 1905, 54,170 head, value \$3,467,677; June, 1904, 51,978 head, value \$3,388,975. For twelve months ending June, 1905, 513,272 head, value \$39,269,015; same period, 1904, 515,048 head, value \$40,594,741.

Hogs.—June, 1905, 3,477 head, value \$31,174; June, 1904, 501 head, value \$5,464. For twelve months ending June, 1905, 12,997 head, value \$127,043; same period 1904, 5,284 head, value \$46,044.

Sheep.—June, 1905, 13,028 head, value \$63,981; June, 1904, 19,545 head, value \$114,886. For twelve months ending June, 1905, 255,631 head, value \$1,008,656; same period 1904, 293,936 head, value \$1,874,634.

Canned Beef.—June, 1905, 6,710,553 lbs., value \$619,838; June, 1904, 2,110,985 lbs., value \$207,401. For twelve months ending June, 1905, 66,727,289 lbs., value \$6,549,616; same period 1904, 56,810,980 lbs., value \$5,820,953.

Fresh Beef.—June, 1905, 19,655,933 lbs., value \$2,190,470; June, 1904, 25,649,367 lbs., value \$2,362,374. For twelve months ending June, 1905, 236,167,478 lbs., value \$22,456,747; same period 1904, 299,097,357 lbs., value \$26,790,801.

Beef, Salted, Pickled and other Cured.—June, 1905, 3,790,816 lbs., value \$232,325; June, 1904, 4,646,771 lbs., value \$244,729. For twelve months ending June, 1905, 54,736,997 lbs., value \$3,016,909; same period 1904, 57,486,129 lbs., value \$3,273,562.

Tallow.—June, 1905, 9,210,637 lbs., value \$419,151; June, 1904, 6,615,487 lbs., value \$303,033. For twelve months ending June, 1905, 63,154,920 lbs., value \$3,004,683; same period, 1904, 76,673,480 lbs., value \$3,796,773.

Bacon.—June, 1905, 23,883,807 lbs., value \$2,289,883; June, 1904, 17,808,275 lbs., value \$1,712,164. For twelve months ending June, 1905, 256,951,359 lbs., value \$25,008,072; same period, 1904, 245,965,910 lbs., value \$24,035,147.

Hams.—June, 1905, 18,133,289 lbs., value \$1,854,902; June, 1904, 18,493,907 lbs., value \$1,960,963. For twelve months ending June, 1905, 197,341,822 lbs., value \$20,943,925; same period, 1904, 188,216,312 lbs., value \$21,533,500.

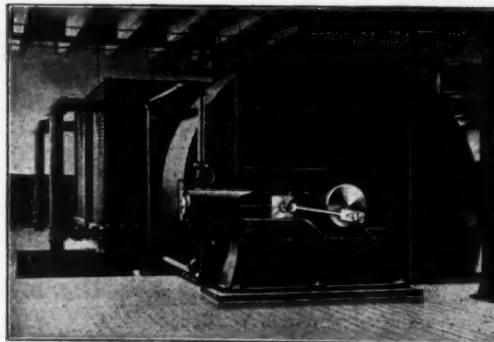
Pork, Fresh, Salted and Pickled.—June, 1905, 11,200,003 lbs., value \$941,350; June, 1904, 9,097,098 lbs., value \$687,555. For twelve months ending June, 1905, 129,574,754 lbs., value \$10,361,059; same period, 1904, 110,146,389 lbs., value \$9,445,834.

Lard.—June, 1905, 50,454,192 lbs., value \$3,956,870; June, 1904, 49,332,082 lbs., value \$3,728,988. For twelve months ending June, 1905, 603,527,369 lbs., value \$46,786,611; same period, 1904, 551,265,546 lbs., value \$45,457,298.

Oleo Oil.—June, 1905, 14,339,792 lbs., value \$1,162,829; June, 1904, 16,791,728 lbs., value \$1,203,443. For twelve months ending June, 1905, 145,082,877 lbs., value \$11,472,832; same period, 1904, 164,720,950 lbs., value \$12,849,393.

Oleomargarine.—June, 1905, 656,259 lbs., value \$57,552; June, 1904, 526,184 lbs., value \$55,067. For twelve months ending June,

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1905, 7,908,308 lbs., value \$707,060; same period, 1904, 6,119,229 lbs., value \$598,771.

Butter.—June, 1905, 610,476 lbs., value \$99,079; June, 1904, 556,298 lbs., value \$82,943. For twelve months ending June, 1905, 9,491,815 lbs., value \$1,505,267; same period, 1904, 10,142,308 lbs., value \$1,640,361.

Total Provisions, including Cattle, Hogs and Sheep.—June, 1905, value \$17,447,770; June, 1904, value \$16,269,293. For twelve months ending June, 1905, value \$193,867,511; same period, 1904, value \$200,175,768.

PFISTER & VOGEL STATEMENT.

The Pfister & Vogel Leather Company of Milwaukee has filed a statement with the Massachusetts Secretary of State. According to the schedule assets of the company on May 1 last aggregate more than \$8,000,000. The surplus amounts to nearly \$2,000,000. The company has gained in the past year over \$1,000,000 in assets. This year's business has also been very satisfactory up to the present time.

NEW MEANS OF TRANSPORTING MEAT

A departure in the method of transferring frozen and chilled meat from the steamer to cold storage has been made recently in Liverpool. It has long been realized that the means employed there and in other large English ports of loading perishable produce on open wagons and hauling it through the streets from the steamer to the cold storage plant, and thence to the retail shop, with no other protection from the sun or unfavorable weather than an ordinary wagon covering, causes an appreciable deterioration in the quality of the produce. Meat in transit has been affected to such an extent that, it is said, the insurance companies are refusing to insure it against deterioration, because of the comparatively high temperature to which it is subjected during transportation from the steamer.

To remove this cause of complaint and for the better preservation of the meat, an improved method of transportation has been devised, consisting in fitting up the wagon in which the meat is hauled with an insulated cover. The cover is a light structure, about six and a half feet high. The sides, end and top are built double, with an outer and inner sheeting of thin boards and a space of about three inches between them. This cavity is filled with sheet cork, a medium which has an insulating capacity nearly equal to that of silicate cotton. The bottom edge of

the cover is lined all around with felt in order to form a close joint when the cover is placed on the wagon. The sides of the cover are provided with small trapdoors through which perishable goods can be introduced or withdrawn.

This device promises to greatly improve the conditions under which meat is conveyed from ship-discharging berths by protecting it from the sun, rain, and wind. It is now recognized that a strong wind is as unfavorable to meat as a warm wind in transit by road. An opportunity was given of testing the utility and practicability of the insulated cover upon the arrival of the steamer Drayton Grange at Liverpool in May. The steamer carried a shipment of lambs and they were hauled from the vessel on a wagon fitted with the insulated cover. Representatives of insurance companies and meat companies were present to observe the effect of the use of the covered van. A fact that caused much favorable comment was the maintenance of a temperature of only 32° F. inside the van while the normal outside temperature was 65° F. The lambs when taken out of the van presented a highly satisfactory appearance. They were not softened in the slightest degree, and showed the bright bloom which is a feature of high-class meat in perfect condition. The success of the experiment seems to be assured.

TRADE GLEANINGS

Baisden-Bragdon-Webb Company, New York City, has incorporated to deal in and manufacture leather; capital, \$30,000. Directors—R. E. Baisden, H. H. Webb, R. H. Bragdon, New York.

The Combahee Fertilizer Company, of Charleston, S. C., will vote next week on increasing its capital from \$80,000 to \$100,000.

Armour & Company are planning to build a fertilizer plant at Nashville, Tenn.

The Wynnewood Cotton Oil Manufacturing Company, of Wynnewood, I. T., is preparing to spend \$5,000 in improving its plant.

D. L. McPherson, of Abbeville, La., is in the market for a 15-ton ice and refrigerating plant.

The Cudahy Packing Company has begun carrying out its programme for improvements at Sioux City, Ia., which will cost over \$300,000. The first contract let is for a large ice house. Other contracts are being considered. The ice house will be 160 by 128 feet and 42 feet high.

The Montana Packing Company, of Helena, Mont., has been incorporated by C. Howard and A. Stroh, of Butte, and John B. Wellcome, of Jefferson County.

The abattoir of Arbogast & Bastian, at Allentown, Pa., was burned Friday night. The plant was valued at \$500,000, and the loss is said to be almost total. The plant will be rebuilt at once.

Campbell Brothers Packing Company, of Danville, Ill., has been chartered with \$75,000 capital by J. J., J. B. & B. F. Campbell.

Marx & Rawolle, of New York City, is a newly incorporated company having \$1,000,000 capital, and formed to manufacture soap, glycerine, shellac, varnish, etc. The incorporators are Charles J. Buchanan, Albany; Isaacetta Rawolle, Nyack, and George F. Henry, Henry Calder and A. W. Varian, all of New York.

The Peters Pork Packing Company, of McKeesport, Pa., is preparing plans for a \$20,000 cold storage plant and new pens, etc.

Diamond Leather Company, of Peabody, Mass., with \$40,000 capital, has been formed with Thomas F. Hayes president and Thomas F. Fitzpatrick treasurer.

Swift & Company have plans drawn for a new poultry packing plant at Carrollton, Mo. The building will be 110 by 35 feet and two stories high.

The damage by fire at the plant of the Columbus Packing Company at Columbus, O., was about \$185,000. It is believed that incendiarism is the cause. The plant will be rebuilt at once.

Fidelity Cotton Oil and Fertilizer Company has been incorporated in New Jersey with headquarters at 15 Exchange place, Jersey City, to manufacture vegetable oils, fats, etc. The capital is \$25,000, and the incorporators, James D. Dawson, Philip R. Lamar and Kenneth McLaren.

Samuel Weiss Company, of New York City, has been formed to deal in meats, groceries, etc., with \$10,000 capital, by Samuel Weiss, Edward Weiss and John Frank, of Brooklyn.

Swift & Company are opening a branch at Iowa City, Ia. The plant of C. I. Turner &

Co. will be used until special quarters can be prepared.

Fire did \$3,000 damage to "Peter Cooper's Glue Factory," at Water street and Burling Slip, New York City, on June 15, now used as offices by the firm.

M. Strauss & Sons' leather plant at Newark, N. J., was damaged to the extent of \$8,000 by fire recently.

Kullman, Salz & Co.'s tannery at Benicia, Cal., was burned recently. Loss, \$125,000. Insurance, \$450,000.

The Daniel Forbes Tannery Company's plant at South Haven, Mich., which has been out of commission for several years, will be opened for business in a short time.

People's Fertilizer and Gin Company, of Midland City, Ala., has been incorporated with \$10,000 capital by J. W. Daniel, S. M. Howell, W. P. Perkins, L. A. Helms, G. W. Kelley, S. D. Hawkins and others.

Lincoln Meat Company, of Pittsburg, Pa., has been incorporated for \$5,000 by Herman Bartels, Jr., of Syracuse, N. Y., John F. Bartels, Rochester, N. Y.; William L. Walton, P. S. Chambers and R. D. Smith, Pittsburg.

The Spartanburg Fertilizer Company, of Spartanburg, Tenn., is planning to increase its capital from \$20,000 to \$50,000.

"FISHY" FLAVORS.

Experiments are being conducted by Chief E. H. Webster of the Dairy Bureau, United States Department of Agriculture, to determine the cause of "fishy" flavor of butter. There has been a decidedly "fishy" flavor in some of the official statements as to adulteration, but it is not to be supposed that the Dairy Bureau will try to remove the cause.

THE NEUROTIC VEGETARIAN.

During a discussion at the Congress of Vegetarians, in London, Mr. Albert Broadbent, who said he was engaged in the "most difficult task" of teaching the Lancashire and Yorkshire workers to appreciate the value of simple food, claimed that vegetarians at present were too neurotic and highly strung, largely because they did not get enough food. It was a fact that people could not do hard and continuous work unless they were well fed animals.

EXCHANGE CONVENTION.

The annual convention of the National Live Stock Exchange is being held in Buffalo this week, with headquarters at the Live Stock Exchange, East Buffalo. This exchange is composed entirely of live stock commission men and the larger stock raisers. At these annual meetings, ways and means are discussed and devised for improvement in handling all live stock business throughout the United States. Between 200 and 300 delegates are in attendance from all over the United States. This is one of the most important conventions this organization has ever held and the questions discussed include the discontinuance of the traveling solicitor, the equalization of commission charges among all exchanges, the establishment of a commercial credit system, the advisability of giving increased powers to the Interstate Commerce Commission and the requiring of all stockholders of corporations to hold memberships. For the meeting several pleasurable features

have been arranged, among which will be an automobile ride about the city, a moonlight excursion up the lake, a trip to the Falls and down the gorge, and a banquet at the International Hotel. C. F. Watkins, secretary of the East Buffalo Live Stock Association, is in charge of details.

CREDITORS TO MEET.

Representatives of the bankrupt Independent Cotton Oil Co. met in Charleston last week and appointed July 26, at Darlington, for a meeting of creditors. It is now estimated that liabilities will reach \$800,000, and the principal assets are a number of mills and ginneries which might not bring one-third of that amount on the block. Charleston is said to have lost about \$375,000 in the failure. It is fully expected that the entire stock issue of \$1,000,000 will be wiped out. The failure is far-reaching, and banks have been hard hit in many Eastern as well as Southern cities.

NEW DELINTING MACHINE.

A despatch from Florence, Ala., says articles of incorporation have been filed in the office of the judge of probate for Lauderdale County by the Dixie Delinter Co., capitalized at \$50,000 for the purpose of putting a new delinting machine on the market. The machine is the invention of W. S. Cannaday of Washington Court House, Ohio, who has been granted a patent. The officers of the company are Lee Ashcraft, president; Dr. W. S. Cannaday, vice-president; J. W. Fry of Columbia, Tenn., treasurer, and Erister Ashcraft, secretary. A full sized machine has been put up in the Ashcraft Cotton Mills and its work is declared perfectly satisfactory. The machine will take the lint off a grain of cotton seed, as perfect as a grain of coffee. It will also cut the heart from a grain of corn, leaving the husk and will prove a most valuable adjunct to the manufacture of corn oil.

TO SELL MEAT AND EXTRACTS.

It is announced from San Antonio, by J. Omerod, organizer of the Texas Liebig Meat Company, that the company is to be incorporated in the coming fall with a board of nine directors, of whom five will be Texas men and four New York men. So far but one name of the Texas contingent of directors is given out. Mr. Omerod says that former Lieut.-Gov. T. B. Wheeler of Aransas Pass is to be on the board of directors. A number of other Texas men of prominence are being considered for places on the board, and it is thought that the directory will be completed and ready for publication in the course of a few weeks. Mr. Omerod says that he has proceeded so far with the organization as to justify the assertion that the incorporation will be perfected and the plant constructed in this State within a few months—a year at most.

It is proposed by its proprietors to make extracts and place on the market only the prime joints of the beef. This, it is urged, will make a ready market for the products of the factory, because there will be no inferior or ordinary meat to be sold. All of that will be used in the manufacture of extracts.

THE BEEF INDUSTRY

Report of James R. Garfield, Commissioner of Corporations, United States Department of Commerce and Labor.

CHAPTER III.—PROPORTION OF THE BEEF BUSINESS OF THE UNITED STATES CONTROLLED BY THE SIX LEADING PACKING COMPANIES.

(Continued from last week.)

II. Proportion of Beef Supply Sold by the Six Companies.

The proportion of the total slaughtering of cattle in the United States which fall to the six great Western packers is naturally nearly the same as the proportion of the total beef consumed in the country which they supply. There are, however, two factors which modify this statement. In the first place, the average weight of cattle differs materially. The average weight of cattle killed by the six companies is materially greater than the average for the country as a whole, although there is no information of a precise character on this point. Over against this it is to be remembered that the number of cattle killed by the six companies, \$5,521,697, as stated on page 57, above, which was there compared with the number estimated as killed in the United States for both domestic and export consumption, includes the cattle killed for export. As stated on page 55, the exports of dressed beef and other forms of beef are equal to approximately 500,000 head of cattle. Of this amount, however, the Western packers in question furnish probably more than 95 per cent. It follows that the proportion of domestic beef consumption which these packers supply is probably nearly the same as the proportion of domestic killings which they slaughter, or about 45 per cent. It should be remembered that this estimate does not include the annual consumption of veal, of which the six companies furnish a very small proportion.

The statistics in regard to the fresh beef consumed in the various sections and cities of the United States is of the same indefinite character as that concerning the cattle supply. Much of the information obtained is stated in carloads. The number of carcasses and the weight of beef in the carload varies greatly under different circumstances. In many cases there are no records whatever, and the best available estimates have necessarily been accepted.

It has been found that the conditions affecting the beef business in different sections of the country and in different cities vary to such an extent that any combination of the data concerning different important points would be confusing and unprofitable. Furthermore, if monopolistic conditions exist in some sections and cities but not in others, any combination of the statistics concerning both would tend to hide rather than reveal just what the investigation is intended to discover, if it exists. For these reasons, in the following discussion of the proportion of the beef supply sold by the six companies, different cities and different sections of the country are generally treated separately. Whenever the contrary is not specifically stated, the local establishments referred to in this discussion are understood to be independent of the six Western companies.

Section 6. Selected Cities.—1. New York City.—The special agent of this bureau who visited New York city for the purpose of ascertaining as exactly as possible the consumption of beef in that city and vicinity in 1903, computed that the carcasses received by railroad and those slaughtered by local establishments amounted to 861,856 during 1903. Of this total, 51 per cent. was shipped in from other points. The Schwarzschild & Sulzberger Company slaughtered 136,505 cattle in that city, and the United Dressed Beef Company, which is controlled by the National Packing Company, 110,601. These two thus furnished 23 per cent. of the total, making altogether 79 per cent. furnished by the Western packers, nearly all by the six companies. Twenty-one per cent. of the total was slaughtered by firms in the city, who are undoubtedly independent of the control of the large Western packers; many of the cattle which they slaughter are bought in Chicago and other Western cities. In addition to the total referred to above, the special agent reported that 65,399 cattle were slaughtered in the towns of New Jersey just across the Hudson from New York city. Apparently only 7,442 of these were killed in plants controlled by the large companies.

In obtaining the statistics of receipts of fresh beef at New York from other points, a carload was counted as 22 carcasses. Since the carcasses received from the West were probably much lighter than those killed in the city, if the number so estimated was correct, these receipts must have furnished less than one-half the fresh beef consumption of New York city. Some of the cattle killed by the United Dressed Beef Company belonged to local retail dealers who paid that company a fixed price per head for their slaughter. A small part of the receipts by railroad come from independent packers, such as Kingan & Co., of Indianapolis. When all these points are taken into consideration, it appears probable that the six leading companies furnished between 70 and 75 per cent. of the fresh beef consumed in New York city and vicinity. The Schwarzschild & Sulzberger Company furnished over 15 per cent. of the total consumption from their local plant. The highest estimate by New York city dealers of the proportion of the total supply slaughtered by independent concerns was 30 per cent. The proportion so furnished was in one case estimated as low as 10 per cent.

One large retail dealer whose sales amount to about 200 carcasses weekly, buys his own cattle and has them slaughtered in the large packing houses. He considers that even in the small business that he does the by-products can be handled about as well as by the large packers. One of the local wholesale butchers expressed the opinion that the large packers had an advantage over himself of \$3 per head. The manager of another company, which slaughtered a considerably

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larger number of cattle, estimated that the advantage of the large packers over his own firm was not over \$2 per head. The butchers of New York city have organized a co-operative company under the name of New York Butchers' Dressed Meat Company. About 500 butchers are said to hold stock in the company. This company has built a packinghouse, which has a capacity of 4,000 carcasses per week. This packinghouse had not been opened up at the time the special agent was in New York city. The general opinion seemed to be that there was no reason why this packinghouse should not be operated successfully if it was well managed. The opinion of those interviewed in New York was that in time the Western packers would be able to control the wholesale price of beef unless the dealers were able to slaughter at least a part of their supply in co-operative establishments.

2. Boston.—The total consumption of beef in 1903 in the city of Boston was computed by the special agent of this bureau as 225,670 carcasses. This very large consumption is due to the large suburban trade. Boston has also a large hotel and steamship trade. The packers are usually more successful in absorbing this class of trade than the family trade, and this is probably one reason why 87 per cent. of the consumption in Boston appears to be furnished by packers in other cities and by local concerns controlled by them, among which are included, according to common report and various indications, Sturdevant & Haley and the New England Dressed Meat and Wool Company. Only 13 per cent. of the consumption was slaughtered by local concerns independent of the large packers. These local establishments have sufficient capacity to slaughter a much larger number of cattle, and they did so during the strike in the summer of 1904. No definite information was obtained as to the percentage of the shipments into the city furnished by different packers. Receipts for selected weeks indicate that the Armour, Swift, Morris and National companies fur-

Swift's Choice Dressed Beef

Mutton, Lamb, Veal, Pork, and Provisions

FOR SALE AT THE FOLLOWING BRANCH HOUSES

NEW YORK

Barclay Street Market, 105 Barclay Street
 Gansevoort Market, 22-24 Tenth Avenue
 West Washington Market, West and Bloomfield Streets
 Thirteenth Street Market, 32-34 Tenth Avenue
 Manhattan Market, W. 35th Street and Eleventh Avenue

BROOKLYN

Williamsburg Market, 100-102 North Sixth Street
 Brooklyn Market, 182-184 Ft. Greene Place
 Atlantic Avenue Market, 74-76 Atlantic Avenue
 Ft. Greene Sheep Market, 172 Ft. Greene Place

West 39th Street Market, 668-670 West 39th Street
 Westchester Avenue Market, 769-771 Westchester Avenue
 West Harlem Market, 130th Street and Twelfth Avenue
 Eleventh Avenue Market, Eleventh Avenue, bet. 34th and 35th Streets
 Murray Hill Market, Foot East 31st Street
 West Side Slaughter House } 664-666 West 39th Street
 West Side Market }

JERSEY CITY

Wayne Street Market, Corner Wayne and Grove Streets
 Ninth Street Market, 138 Ninth Street

Swift & Company New York

Central Office, Nos. 32-34 Tenth Avenue

nish nearly three-fourths of all the beef sold in the city.

There appears to be less disposition among the leading dealers in Boston to complain of the large packers than there is in other cities, though the average price paid for fresh beef there is higher than in any other large city. The beef men in Boston are probably better satisfied with the operations of the large companies, because the beef is sold to a large extent through local wholesalers, or by commission men instead of through branch houses of the packers.

3. Philadelphia.—According to the computations of the special agents of this bureau, who investigated the consumption of fresh beef in Philadelphia, the total consumption in that city in 1903 was between 260,000 and 270,000 carcasses. Of this total nearly 160,000 carcasses, or about 60 per cent., were shipped in from other points. Probably one-tenth of the shipments from other points was from packinghouses independent of the six large companies. According to the best estimates available, the four Western companies did not furnish over 45 per cent. of the

fresh beef consumed in Philadelphia. Some of the local dealers believe the proportion of beef shipped in is 75 per cent. of the total consumption. This opinion is not based on records of an kind. Interviews with the retail dealers make it evident that there is a strong prejudice in favor of home-killed beef in Philadelphia.

(To be continued.)

Note.—The publication of the official report of Commissioner Garfield on his investigation of the beef industry began in the issue of The National Provisioner of March 25.

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Jersey City

Beef and Pork Packers

Lard Refiners and General Provision Dealers

For Export and Local Trade

Jersey City Office, 138-154 Ninth Street

New York Office, 342 Produce Exchange

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SOME EXPORT FIGURES

The exports of domestic breadstuffs, provisions, etc., for the month of June, 1905, and for the twelve months ending June, which practically means for the fiscal year 1904-5, offer a great many interesting points for thought and discussion. Some of the most conspicuous parts of this report do not properly belong to the sphere of The National Provisioner, as, for instance, the almost complete wiping out of wheat from the list of articles exported, the connecting enormous decrease in the exports of wheat flour or the stupendous increase in the export, quantity as well as values, of cotton. But it is worth while considering the fact that the total exports of breadstuffs fell from \$205,000,000 in 1901-2 and \$213,000,000 in 1902-3 to \$143,000,000 in 1903-4 and to \$101,000,000 in 1904-5, less than 50 per cent. of the exports of two of three years ago. At the same time the export value of cotton rose in the same years from 290 and 315 millions of dollars to 370 and 380 millions. Also the export of mineral oils rose in the same years from 71 and 65 millions to 77 millions.

As to provisions, including cattle, hogs and sheep, a considerable decrease in the exports is to be noted, amounting from \$182,-

000,000 in 1901-2 to \$160,000,000 in 1902-3 to \$157,000,000 in 1903-4 and to \$153,000,000 in round figures in the year 1904-5. This decrease in provisions is so far the most remarkable as specific influences, such as the great war in the Far East have increased the exports of some articles such as canned beef, bacon, fresh pork and lard. Whether foreign legislation or increased domestic consumption contributed more to this continuous decrease in the exports of provisions is a matter well worth being investigated. Another point of conspicuous importance is the manifest increase in exports from Southern ports at the expense of the continued decrease of exports from Eastern ports. This hand-writing on the wall deserves much greater attention on the part of the different chambers of commerce than it has found hitherto.

SPECIALIZING PRODUCTS

Over zealous competitors often say that packers doing a general business in meat and by-products cannot produce as good products as those who make a specialty of only one or two articles. They back the statement with the assertion that where many lines are produced the same care cannot be exercised in the case of each, as can be done where only one or a few are to be considered. It is added that this drawback also applies to improving processes and for the same reason. Such statements are wholly fallacious. The modern packinghouse is thoroughly departmentalized, and each product is manufactured under the eye of an expert who gives his personal supervision to every operation, and who, under these circumstances, can turn out products as highly specialized as the manufacturer with a limited line. In fact, the department head in a packinghouse has the advantage, for he is enabled to use the consulting advice of other experts in different lines and because his plant equipment is sufficient to meet all requirements. There are scores of packinghouse brands on the market which equal, if not surpass, any of the competing so-called specialties.

A POPULAR MOVEMENT

The rapid growth of the movement on behalf of reciprocity is astonishing and gratifying. It must indeed be a popular and meritorious idea that can within a very short time display such formidable strength, as the movement for reciprocity as prospective successor to exclusion and retaliation has been proved to possess. We need but look to the figures of the American foreign trade (exports and imports) to understand the vitality of the question and the substantial reason for and causes of the present movement. Since 1900 our foreign trade exceeds the enormous value of two billions of dollars, and according to the report just published

the last fiscal year 1904-5 shows even the two and one-half billion mark passed. The figures are for the fiscal years

1899-1900	\$2,244,424,266
1900-1901	2,310,937,156
1901-1902	2,285,040,349
1902-1903	2,445,860,916
1903-1904	2,451,959,163
1904-1905	2,635,970,333

Stupendous, amazing figures, indicating an immense domestic power for production and an almost incredible purchasing power in this country. The number of American producers and merchants participating in the movements of these thousands of millions is necessarily exceedingly large. Hence the inherent strength of the reciprocity idea, which is more and more generally recognized as the only efficient protector of the immense American trade with foreign nations. The effect of the displayed strength is obvious. Our national government is bound to take official notice of the coming Chicago convention, because it feels the time rapidly approaching when it will have to take official action on the outcome of said conference.

ENEMIES TO CANNED MEATS

Canned meats, like all other canned condiments, are healthful if properly handled. The layman, like the housewife, will not follow instructions, written or verbal. An opened can seems to be as good a receptacle for meats as any other vessel. Science and warnings are all laid aside for appearances. Thus comes the danger of canned foods. Ptomaine poisoning is something the lay mind never conceives nor understands. One does careless things, gets pains, calls the doctor, is told that he is poisoned. He then says "the meat did it." At the same time he forgets that he left the uneaten portion in the opened can, contrary to the printed instructions, and later ate it, also.

Carelessness and ignorance accounts for 95 per cent. of illnesses from canned meats. Being convinced of this, the United States government has requested contractors for commissary supplies to pack the field ration in gelatine for the Philippines, and it is a most difficult task, because of the presence of a "borer" or bug in that country which perforates every substance but metal. The American packers have produced a gelatine paper wrapper which defies the penetrating bug. The army in the far East will thus feed upon prepared meats without the danger of ptomaine poisoning.

This gelatinized product will, doubtless, become a general army ration package. It is hoped that the wrapper will be as impervious to the island's soggy climate as it is to the local bug of boring proclivities. Human stupidity is largely accounted for on the hypothesis of human laziness. The lazy bug is canned food's worst enemy.

TECHNICAL AND SCIENTIFIC

GLUE COMPOSITION FOR WOOD.

Ordinary animal glue is dissolved in milk of lime, and one to two parts of linseed meal are added to the glue solution so obtained, which should make about nine pints in all, and about one part of commercial silicate of soda. The sheets of wood to be united are coated thinly with this cement and then brought together and submitted to pressure and heat.

CHINESE WOOD OIL.

Wood oil is rapidly becoming an important article of export from China. During recent seasons there has been over \$1,890,000 worth of it shipped from Hankow. There are two kinds of this oil, one yellow, the other a dark color. Only the former has been exported, being considered of a higher quality than the latter. The price of the yellow variety during last season has varied from \$4.92 to \$6.05 per 133 1-3 pounds. The oil is brought to the port in bamboo baskets lined with oiled paper, each basket containing about 133 1-3 pounds of oil.

THE DANGERS OF MACHINERY.

Modern industry, by improving and multiplying its methods of action, has increased the danger for the operative, who depends for his livelihood on his daily labor. Machinery to-day replacing and decoupling human force, constitutes not only an admirable source of production, but also a terrible source of danger. An industrial establishment, as has been correctly said, is a battlefield, having, like war, its victims, some mortally attacked, others more or less grievously wounded, and for a shorter or longer period rendered incapable of providing for their personal needs.

NEWLY APPROVED SHEEP DIPS.

The sheep dips now approved by the Department of Agriculture are:

(1) The tobacco and sulphur dip, made with sufficient extract of tobacco or nicotine solution to give a mixture containing not less than five one-hundredths of 1 per cent. of nicotine and 2 per cent. of flowers of sulphur.

(2) The lime and sulphur dip, made with 8 pounds of unslaked lime and 24 pounds of flowers of sulphur to 100 gallons of water. The lime and sulphur should be boiled together for not less than two hours, and all sediment allowed to subside before the liquid is placed in the dipping vat.

The dipping should be carefully done and the sheep handled as humanely as possible. The sheep shall be kept in the dip between two and three minutes, and their heads be submerged at least once, though but for an instant at a time. The dip shall be maintained at a temperature between 100 and 105 deg. F. while the sheep are in it.

SOAP FOR USE BY LEAD WORKERS.

The principle on which the value of a soap for use by lead workers is based is the formation of insoluble lead sulphide. A solution of soap is mixed at a temperature of 30 deg. C. with powdered alkali sulphides, and allowed to cool. In use the sulphides convert any lead on the hands into insoluble lead sulphide. This soap will also prevent similar poisoning by copper or mercury.

ACIDS IN TANNING MATERIALS.

Tanning materials contain generally in addition to the true tannin and non-acid constituents, a variable amount of acid, acids, or acid salts, and it is these latter which, although strictly speaking non-tannins, are necessary and indispensable tanning adjuncts. In fact, strange though the statement may be, pure, true tannin, which we term anhydrous digallic acid, does not make leather without the aid of an adjunct, and pure tannic acid does not precipitate collin without the addition of a tanning adjunct, that is to say, it requires the addition of a small quantity of organic acid.

AMMONIA FROM COAL GAS.

The use of rotary scrubbers instead of towers, both for absorbing ammonia from the coal gas and for the final production of liquor ammonia, is recommended for economical reasons, claiming as advantages the use of smaller quantities of water, the removal of a greater amount of impurities from the gas and the production of a much stronger crude liquor. It is stated that by the use of rotary scrubbers for washing the gas 47 per cent. of the carbon dioxide, 33 per cent. of the sulphuretted hydrogen, and 99.8 per cent. of the ammonia can be removed from the gas, and that crude liquor containing 6 per cent. of ammonia can be produced.

WOOD ASHES.

Wood ashes vary greatly. The Florida Department of Agriculture reports that there are many tons of ashes used as a fertilizer in that State. When they can be purchased at a price comparable with their actual value they are doubtless a most valuable source of potash. The average price of these goods is, however, far in excess of their value. Potash obtained from this source generally costs much more than from other reliable sources—sulphate or muriate of potash, kainit or sylvinit. Samples of hickory, maple, palmetto and other so-called hardwood ashes show from 0.57 to 4.24 per cent. of potash worth from \$0.62 to \$4.66 per ton at seaports. The average shows 2.56 per cent. of potash. Guarantees are generally 2 to 8 per cent. potash. The minimum is the actual guarantee. The best unleached ashes contain but 8 per cent.; ordinarily less than 5 per cent.

A NEW GERMAN SMOKE CONSUMER.

A German firm has recently patented a system for consuming smoke and preventing the wasting of coal which, it is claimed, is proving very successful. The system has been tested at the experimental station of the Bavarian "Revisions-Verein" in Munich, where it was found that 72 per cent. of the combustible value of soft coal from the Saar district can be utilized when this smoke consumer is used. The conditions were unusually favorable at this station, but it is confidently claimed that almost anywhere the saving of coal will amount to from 12 to 25 per cent. The director of a rope and cable factory at Frankfort, Germany, where the system has been in use for some time, reports a minimal development of smoke only when fires are started or replenished; at other times no smoke is visible and the saving of coal amounts to more than 20 per cent. The owners of the patent allow to interested factories a four-weeks' trial, guaranteeing a saving of at least 10 per cent. in coal. At the end of the four weeks a contract may be made for a period of five years, the annual charge for the use of the smoke consumer and for keeping it in order being \$425 to \$175, according to construction and size.

RECENT PATENTS.

793,777.—Condenser. Reginald A. Fessenden, Washington, D. C. The combination with a tank or shell of two separated conducting members, spark-gap terminals arranged within the tank or shell and surrounded by gas under pressure and means extending from the tank for adjusting one of the spark-gap terminals.

793,725.—Apparatus for Filtering Liquids. Samuel H. Johnson, Stratford, London, England, assignor to S. H. Johnson & Company, Limited, Stratford, London, England. The combination of a series of recessed filter-plates having central inlets and circumferential outlets and arranged in contact with each other so that their recessed parts form a series of chambers, filtering material held by the plates between the outlets and the chambers, a plate on the end of the series having an inlet-port communicating with the central inlets for the liquid and an outlet-port for the filtrate, a gas-tight casing for inclosing the said chambers and means for hermetically jointing the casing to the base-plate.

1,001,132.—Distilling Apparatus. Ernest E. Morlan, Kansas City, Kans. A distilling apparatus, consisting of a steam-generating retort, a casing for inclosing the sides and top of the retort, a steam-pipe communicating with the retort having an inclined portion provided with depressions at its under side, a condenser communicating with the upper portion of the depressed end of the inclined portion of the steam-pipe, condensers having outlets terminating beneath the upper portions of the depressions in the steam-pipe, and inclined pipe connecting the condensers.

793,696.—Refrigerating Apparatus. Gardner T. Voorhees, Boston, Mass. A refrigerating apparatus having a shell; an end therefor; a main-tube plate, and a secondary-tube plate, within said shell; a plurality of tubes passing through said plates; means rigidly to fix tubes in the main plate; trusses lying between said plates and also between said tubes, to support and stiffen said plates; means on the portion of each of said tubes, extending through said secondary plate, whereby the plates and trusses are rigidly bound together; and proper inlets and outlets for said apparatus.

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Rotary Dryers and Other Special Machinery for Tank Water, Glue, Beef Extract, Brine, Etc.

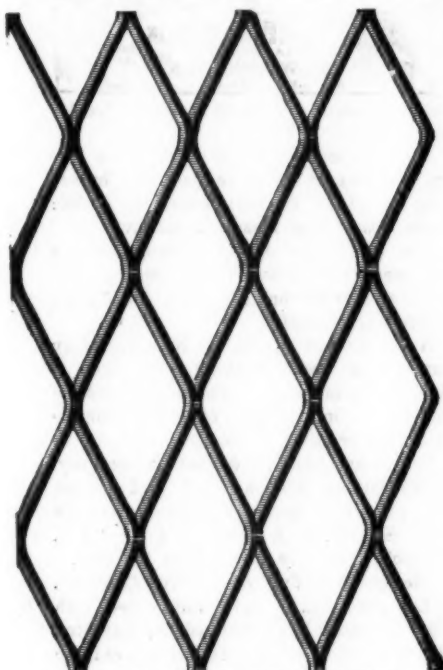
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In an experience of many years in locker building, Merritt & Co., whose offices are at No. 1009 Ridge avenue, Philadelphia, and who have a large manufacturing plant at Camden, N. J., have found that no locker will be thoroughly satisfactory which does not combine sanitary qualities, security to the belongings of the occupant and durability; not only general durability of the main structure, but also in all details, such as



Actual Size $\frac{1}{2}$ in. Mesh Expanded Metal

hinges, hooks, lock fastenings, etc. Every part must be strong and bear careful examination.

Merritt & Co. construct lockers of all types and in any size, either single or double tier. Their "unit type" is made in 12 by 12 in., 14 by 16 in. and 15 by 20 in. sizes. For lockers, sheet steel is cut almost into wire, leaving bits not cut and pulled apart; the result is a network of solid steel of one piece with three-quarter inch meshes, the same as wire would be if the wires could be welded together at crossings. A foot of sheet steel is stretched to the width of five feet. The net is as strong, against breaking, as wire, and cannot be opened by slipping as wire net can. Sheets of larger mesh are used for tool room inclosures, elevator screens, window guards, etc. Merritt & Co. will send a sample of expanded metal or their attractive booklet on request.

THE OPPENHEIMER CATALOGUE.

S. Oppenheimer & Company, manufacturers of sausage casings and butchers supplies, New York and Chicago, have issued one of the handsomest and most complete catalogues ever gotten out in the trade. It contains 240 pages between heavy board covers, handsomely bound in green cloth. The pages are extra large size and room is found for illustrations which show the smallest detail of the goods advertised, as well as giving full description and price. The field covered

is a wide one, including butchers' tools, scales, rollers, tracking, hoists, spice mills, grindstones, butcher garments, baskets, trucks, platters, etc., sausage-making machinery, special packinghouse machinery, lard room machinery and engines, boilers, motors, etc., market fixtures, sausage kitchen specialties, sausage casings, etc., etc.

There is hardly anything in the equipment of a packinghouse or a butcher shop that this firm cannot supply from this catalogue. It may be had on application to the firm at its Chicago or New York offices, or at its agencies in London, England, Hamburg, Germany, or Wellington, New Zealand.

COMMERCIAL MOTOR VEHICLES.

The July 5 issue of The Horseless Age is devoted almost exclusively to the commercial automobile. It contains a number of articles by authors thoroughly familiar with the commercial automobile problem which are well illustrated. The Horseless Age is the pioneer publication on self-propelled vehicles and is the authority of the field it covers. A copy of this special issue can be had by addressing the publisher, E. P. Ingersoll, Nos. 9-15 Murray street, New York.

PROTECTS ELEVATOR CABLES.

Elevator cables are subject to both external and internal wear, the latter due to the rubbing of the wires and strands one upon another, the former to chafing and wedging in the grooves of the pulleys. In order to prevent rapid deterioration of cables they must be kept well lubricated. The lubricant should not only coat the cable as a whole but every strand and internal wire and prevent any rubbing contact of the inner parts.

It is altogether impractical to remove cables and to treat them foot by foot with lubricant, and those whose work it is to care for elevator cables cannot be expected to give the same attention to this important detail if they are put to great trouble or danger in applying the rope dressing. The rapid wear and frequent renewal of worn elevator cables is a familiar proof of the foregoing statements.

Dixon's "Handy Graphite Rope Dressing" was designed to embody the ideal qualities of Dixon's flake graphite as a wire rope lubricant in such form as would make it acceptable to practical men and assure its application.

This dressing is applied by holding the open edge of the package against the cable while

in motion. There is no danger, no trouble, no waste, no dripping, and the lubricant is evenly distributed.

It is well recognized that Dixon's flake graphite prevents wear of all parts coated with it, and the economy of Dixon's "Handy Graphite Rope Dressing" in prolonging the life of wire rope and in saving the expense of frequent renewals should commend it to the careful attention of every firm operating hoists or elevators.



Full particulars will be supplied upon request to the makers, the Joseph Dixon Crucible Company, Jersey City, N. J. With Cut No. 724

LARD REFINING MACHINERY.

The Brecht Butchers' Supply Co., of St. Louis, Mo., is having remarkable success in the sale of its lard refining machinery. Not only is it securing a large number of orders, but in the case of every installation the buyers have expressed their complete satisfaction with the finished plant. This is no doubt due to the fact that every plant is erected under the personal supervision of a lard refining expert who knows every detail of the requirements. Recent orders received by the company for this class of equipment, to be delivered in the immediate future, are from the Rochester Packing & Cold Storage Co., Rochester, N. Y.; Rosslyn Packing Co., Washington, D. C., and John Peters, Williamsport, Pa. The company will send complete information regarding its lard refining machinery upon request to the main office or any of its branches.

FOR BETTER LUBRICATION OF VALVES AND CYLINDERS TRY DIXON'S FLAKE GRAPHITE.

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ANHYDROUS AMMONIA AQUA

THE ROESSLER & HASSLACHER CHEMICAL CO., 100 William St., New York
Agents for the AMMONIA COMPANY OF PHILADELPHIA

ICE AND REFRIGERATION

NEW CORPORATIONS.

Independent Ice Company, of Beaver Falls, Pa., has been organized. Clyde Morrison is manager.

Ohio Bell Pure Air and Cooling Company, of Cincinnati, O., with \$34,000 capital, has been incorporated. No names are given.

Three C. Ice Company, of Wiggins, La., has been incorporated with J. P. Clendenin, A. C. Castle and R. E. Casseberry as directors.

Midway Ice Company, of Wiggins, La., with \$10,000 capital, has been chartered by W. J. McCoy, T. B. Miller and C. A. Shoemaker.

Graham Ice Company, of Graham, N. C., with \$25,000 capital, has been incorporated by H. L. Millner, of Morganton; C. P. Hartwell and M. F. Frey, of Washington, D. C.

Greenfield Ice and Fuel Company, of Greenfield, Ind., has been chartered with \$30,000 capital by Thomas H. New, Byron A. Sutherland, Elizabeth H. New and N. A. Sutherland.

Oxford Ice Company, of Oxford, N. C., has been incorporated by H. L. Millner, of Morganton, and C. P. Hartwell and M. F. Frey, of Washington, N. C., with \$25,000 capital.

Crystal Ice & Fuel Company, of Waterloo, Ia., has been chartered. The capital is \$18,000 and the officers are C. P. Feddersen, president; M. Federspeel, vice-president; T. D. Miller, secretary and treasurer; J. F. Simpson, general manager. Both natural and manufactured ice will be dealt in.

North American Cold Storage Company, of Paynesville, Minn., has reorganized. The capital is \$50,000 and the incorporators F. R. Noonan, Anson Evans and Milton J. Schwartz. La Grange creamery of Beekman, N. Y., with capital of \$10,000, has been incorporated by Judson A. Denton, and others.

Berwick Ice & Fuel Company, Ltd., of Morgan City, La., has been organized. The capital is \$10,000 and the incorporators, W. J. Lawrence, John and Eugene Pharr, et al.

Troy Creamery, of Troy, Ind., has been chartered with \$5,900 capital by Otto J. Baeritch, A. M. Baker and August Feldpausch.

ICE NOTES.

The Bailey-Douk Hardware Company, of Sheffield, Ala., will build an ice plant.

A company is organizing to build an ice plant and cotton gin at Menardville, Tex.

John P. Morrel & Company have purchased

a site at Mobile, Ala., on which to build a cold storage warehouse.

The Alabama-Virginia Iron Company will put in a five-ton ice and refrigerating plant at its works in Russellville, Ala.

The plant of the Adrian Cold Storage Company, at Adrian, Mich., has been opened for business.

Kuhn & Glenn, of Altoona, Pa., are putting in a 100-ton ice machine which will increase their output to 125 tons per day.

The ice house of W. J. Gass, at Irish Point, Pa., was burned recently. Loss \$1,000. Cause unknown.

The Middle Florida Ice Company, of Tallahassee, Fla., is installing a ten-ton ice plant to bring its output up to 20 tons daily.

The Knoxville Ice Company, of Knoxville, Tenn., is preparing to sink a deep well at its Cumberland avenue plant.

William S. Neff, of Trenton, N. J., is planning to build an ice plant at 890 East State street.

London, Ontario, Can., is without ice and has been importing carloads from Port Huron, Mich., and Hamilton, Ont.

Dr. W. Godfrey Hunter, of Somerset, Ky., has closed a deal for forming a company to manufacture ice.

An ice house at Marysville, O., owned by Dr. S. N. McCloud and used by George Schlegel, was burned by incendiaries recently. Loss \$2,500.

Cincinnati commission merchants are promoting a plan to build a cold storage plant. A warehouse costing \$600,000 is talked about.

Ice men in Bristol, Va., are required by an ordinance recently passed by the council, to



carry standard scales and weigh all ice before its sale.

The six-room ice house of the John Hilt Ice Company at La Porte, Ind., was burned July 16. Loss, \$10,000; insurance, \$3,500; cause, spark from passing locomotive.

The ice houses of the Cudahy Packing Company at Seymour Lake, Omaha, Neb., were struck by lightning and burned recently. Loss \$35,000.

A strike of ice handlers in New York City during the record-breaking heat was a threatening calamity which was averted by the increase in the wages of helpers from \$9 to \$12 per week by all dealers.

The Co-operative Ice & Cartage Company, of Milwaukee, Wis., has had filed against it a petition in involuntary bankruptcy by E. T. Souther, A. I. Roethe and Charles G. Wooleok, who have filed claims for \$962.

The Lewiston Fuel & Transfer Company, of Lewiston, Ida., recently incorporated, with \$15,000 capital, has purchased the Lewiston Fuel and Ice Company. It has reduced the

WOOD'S ICE TOOLS

Gifford's Ice Elevators and Conveyors

GIFFORD-WOOD CO.

Successor to Wm. T. Wood & Co., Arlington, Mass., and Gifford Bros., Hudson, N. Y.

SHOPS: ARLINGTON, MASS., HUDSON, N. Y.



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Union Stock Yards,
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Specialist in the DESIGNING and BUILDING of PACKING HOUSES, ICE, POWER and CREAMERY PLANTS Upon application I will send to prospective builders a partial list of PLANTS I designed.

price of ice from 75 to 50c per cwt. and of coal from \$7.50 to \$7.25 per cwt.

The Canadian Department of Agriculture is planning a test to ascertain what construction of government-aided cold stores should be approved. Nine small houses of different styles and materials will be used to make the tests, which will be exhaustive.

The Florida Ice Manufacturing Company, of Jacksonville, Fla., has adopted plans to increase its refrigerating capacity from 200 to 360 tons daily. The cold storage rooms will be enlarged also and two additional boilers installed. Work is to be completed by December.

COLD STORAGE FOR GOLD MINES.

It is proposed to install cold storage in some of the mines on the Rand, South Africa. It is strange that this has not been done before. Many of the large mining properties contain populations running from three or four up to six or seven hundred. On one property it is estimated that the population is close to a thousand souls. In that climate perishable provisions decay very quickly. For this reason only small quantities have been obtained at a time, the supply being replenished from day to day. The difference in expenditure between the purchase of large and small quantities is, of course, apparent, and the amount of money that has been lost through such an omission



PURITY

Every packer wants the most economical refrigerating machinery and which can be depended upon to produce the maximum of capacity with the minimum of cost, and be the simplest and easiest operated.

The Vogt Machines may be depended upon to meet your requirements, no matter how rigid they may be. Based upon the Absorption System—the only really scientific refrigerating system—these machines produce results not otherwise possible.

We want every packer who is thinking of installing refrigerating machinery or making any changes to hear our story before he makes any decision. We like to get inquiries and to answer them.

HENRY VOGT MACHINE COMPANY
10th Street and Ormsby Ave. LOUISVILLE, KY.

must be very considerable. Fish enters largely in the food served out to the Chinese laborers and is obtained from the coast in the ordinary way. Besides this the regulations lay down that a certain quantity of vegetables is to be issued to each man during the week. The saving in these two items alone will be considerable. The European employees in the mines, in most instances, mess themselves, two or three "chum in" together, and hire a boy to cook for them. If these can obtain storage, they also will benefit largely, as they will be able to make larger purchases also, and obtain the corresponding reduction. The experiment should prove an undoubted success; the saving in mealies alone, which are issued to the Kafirs, many of whom are still employed there, should cover expenses before any long period has elapsed.

SHEET CORK INSULATION

—FOR—
*CHILLING and COLD
STORAGE ROOMS*

SEND FOR SAMPLES, CIRCULARS, ETC.

The Nonpareil Cork Works, 105 HUDSON ST.,
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MINERAL WOOL MOST EFFECTIVE INSULATOR



FOR
COLD STORAGE, Etc.

CHEAP AND EASILY APPLIED

SAMPLES FREE

UNITED STATES MINERAL WOOL CO.

143 Liberty Street, New York City

W. H. BOWER, GEORGE R. BOWER,
General Manager. Secretary and Treasurer.

THE AMMONIA CO.

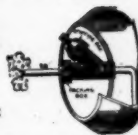
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ANHYDROUS

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PURE AND
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For Refrigerating
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Baltimore, 301 North Charles St., Baltimore Chrome Works.
Washington, 1227 Pennsylvania Ave., Littlefield, Alvord & Co.
Norfolk, The Nottingham & Wrenn Co.
Atlanta, Century Building, Southern Power Supply Co.
Jacksonville, Atlantic Coast Line Ave., S. H. W. Acosta.
New Orleans, Magazine & Common Sts., Finlay, Dicks & Co., Ltd.
Cleveland, The Cleveland Storage Co.
Cincinnati, 9 East Pearl St., C. F. Calvert.
Chicago, 16 N. Clark St., F. C. Schapper.
Milwaukee, 136 W. Water St., Central Warehouse.
Kansas City, 717 Delaware St., O. A. Brown.
Omaha, 1013 Leavenworth St., Wm. M. Bushman.
Wheeling, Wheeling Warehouse & Storage Co.
Liverpool, Adelphi Bank Chambers, Peter R. McQuile & Son.

COLOR IN THE CORE OF CAN ICE.

By John C. Sparks, B. Sc., F. C. S.

Well Water Analysis.

I had doubts, of course, that the well water, coming from the same locality, would have the same objectionable features, and subjected it to a complete analysis and found it to be:

	Grains per Gallon.
Total solids in suspension (oxide of iron)	3.42
Total solids in solution.....	26.3
Mineral matter	25.4
Organic and volatile	0.9
Free ammonia	0.0029
Albuminoid ammonia	0.0074
Nitrous acid	Trace
Nitric acid	1.41
Chlorine	3.2
Sulphuric acid	3.91
Total hardness	21.3
Transient hardness	9.9
Permanent hardness	11.4
Oxygen required	0.41
Lime	9.27
Magnesia	2.11
Oxide of iron	0.32

It will be noticed that when this water is compared with the river water the quantity of suspended oxide of iron present is much less in the well water, but the oxide of iron in solution is much more. Also the well water is much harder than the river water. It may be explained here that the transient hardness indicates carbonates of lime and magnesia, and the permanent hardness indicates sulphate of lime. The sulphate forms the "hard scale." A water with 11.4 grains of sulphate of lime per gallon would need an expensive treatment for boiler feed purposes. This fact added to the fact that the well water contained about three times as much oxide of iron in solution as the river water, condemned it for use in the boiler and some method had to be devised whereby the river water could be used for ice making and the ice kept free from the red core. This treatment I will take up later in the paper, as the consideration now is the presence of iron in waters used for ice making. I may state, however, that since the beginning of the season in 1901, this ice plant has been using the river water and has made uniformly clear, clean ice.

Cuban Water Bad.

The next case we will consider was one in Cuba, and the ice produced was absolutely unfit for sale.

The trouble was so deep rooted here that I deemed it necessary to follow the water from a scientific standpoint from the time it entered the boiler to the time it reached the ice cans.

To do this I had samples taken at the various stages and analyzed them. These samples were (1) feed water, a well water and the only available source of supply; (2) sample of distilled water taken from the skimming tank; (3) sample taken after passing through the sponge filter and ready to be used in the ice cans.

(1) Analysis of sample of well water used for boiler feed:

	Grains per Gallon.
Total solids	25.6
Mineral matter	24.3
Organic and volatile.....	1.3
Free ammonia	0.002

Albuminoid ammonia	0.016
Nitrous acid	Trace
Nitric acid	1.2
Chlorine	5.37
Sulphuric acid	2.31
Total hardness	17.3
Permanent hardness	6.8
Transient hardness	10.4
Oxygen required	0.8
Lime	10.6
Magnesia	1.2
Oxide of iron	0.161

It will be noticed that this water is very hard, is not up to the sanitary standards of the general requirements of water for ice making, that it contains common salt in abnormal quantities, that it will form a hard scale and is unsuited for condensers and boiler feed purposes on this account and that it greatly exceeds the safety limit in the quantity of oxide of iron present. As it was the only water available it had to be considered seriously, and steps taken to put it into a suitable condition.

(2) Sample of distilled water taken from skimming tank:

Total oxide of iron, 5.21 gr. per gal.
(In suspension and solution).

It will be noticed that there had been an accumulation of the objectionable oxide in this tank and that now the distilled water was worse in this respect than the original boiler feed supply. The engineer of this plant—which was only run twelve hours a day—said on being asked to give some explanation of the condition of this plant: "Sometimes before shutting down the water looked clear, and next morning before starting the engine it was all red and muddy." I wish to refer to this point later.

(3) Sample of distilled water taken after passing the sponge filter and ready to be used in the cans:

Iron oxide (in solution; none in suspension)

0.29
Sponge Filters Help.

This analysis shows that the sponge filter does a great deal of good and removes the iron in suspension, but that iron in solution still remains in the water to be made into ice.

I could cite twenty or thirty other cases that bear out the same facts at Newark, N. J.; at Orange, N. J.; at Englewood, N. J.; in Westchester County, New York; in California, in almost all of the Southern States, etc., etc., showing a wide distribution of the same trouble coming from the same cause and teaching the same facts, but these two cases are enough to bring out the points I wish to emphasize to the manufacturers of ice.

These points are:

(1) That this discoloration is caused by oxide of iron.

(2) That the oxide of iron is in solution in the feed water.

(3) That the oxide of iron passes right through the system.

(4) That in going through the system some is eliminated and is caught by the sponge filter.

(5) That the iron in solution goes through the sponge filter and by the eliminating process of freezing is segregated into the core.

These points bring up to the consideration of the form in which the iron exists in the water. It is evident that it exists as a salt of iron that is soluble in water and that it is present finally in the core of the discolored ice cake as an oxide of iron.

Carbonate of Iron Found.

From this reasoning it can only exist as the carbonate of iron which is soluble in water containing carbon dioxide. When the carbon dioxide is driven off the iron starts to come out of solution as the previous analyses have shown, that some of the iron was lost in going through the system. I have made a great number of tests and find that the iron does exist as the carbonate in the feed water, and is carried in that form right through the system till by the process of elimination due to the formation of ice round the inside of the can the air still left in the water and the carbonate of iron are forced together in the core of the ice cake and the carbonate is there oxidized and coming out of solution produces this yellowish red color.

To get rid of this iron, therefore, it is necessary to oxidize it in the feed water before the water is introduced into the boiler or while it is in the boiler to throw it out of solution as ordinary steam is wet enough to carry it along if it is still in solution as the carbonate.

Having reached the root of the trouble it is an easy matter to add an oxidizing agent to the feed water, and by occasionally blowing the boiler down a gauge or so to get rid of this iron in the form of an oxide. This agent will be considered in the next paper.

PHILIPPINE SWINE.

Swine, the most numerous of all domestic animals in the Philippine Islands, as shown in the census reports of those islands, are found in every province and island of the archipelago.

PRODUCE EXCHANGE NOTES.

Visitors: R. B. Schneider, Wm. F. Quick, Paul Sellman, W. C. Evans, Chicago; H. F. Langenberg, St. Louis; A. L. Hirsch, St. Louis; A. H. Boole, New Orleans.

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PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the bbl. except lard, which is quoted by the cwt. in tcs., pork and beef by the bbl. or tierce and hogs by the cwt.

A Feverish Undertone—Trifle Freer Speculation—Light Fluctuations in Prices—Good Consumption and Full Consignments to Europe—Relatively Full Prices for Hogs—No Very Marked Course of the Products Markets to a Higher or Lower Basis.

The products markets for the week have held their own very well and have been, most of the time, fairly well supported in prices, although slight reactions to easier prices have been spasmodic and are occasioned by a disposition to take profits.

The speculative sentiment seems to have widened a little, although it is not, as yet, of especial force, as the grain markets seem to be more tempting than those for the hog products to the speculators, especially to the outsiders, while that they take the greater proportion of their trading interest.

There is little question but in the consideration of the cost of hogs that the developments of the products markets are a disappointment thus far this month.

The general list of the products could stand some advance in prices, in consideration of the market prices for hogs, and it is doubtful if demands from consumers would be checked through moderately improved prices for the products.

Indeed for some lines of the products those that have been needed for prompt delivery by the consumers rather more money has been made than was possible to obtain for them last week. Indeed it may be said that cash meats in a general way are more difficult to buy except at some improvement upon the late before quoted trading prices.

But the speculative situation is an enigma. It fails to respond to some in-

fluences that are of a more bullish order than those that had been had before latterly, and notwithstanding the trade theory that bullish movements, if they are to happen at all in the near future, should show themselves this month.

It is true that small gains are made in prices from time to time and that it is easier to hold the market to them for a longer period than ordinarily, nevertheless reactions do happen to easier prices for the entire list of the products, and the market situation, for them, on the whole, make little headway to steadier conditions.

In other words, there is not now a promise of, for the near future, very marked change in prices, either way. But that on the whole the situation should slightly favor the selling interest, in that the hog prices, as well as the grain markets, are more encouraging to the packing interests, while that the consumption of the hog products proceeds in a full way.

The more desirable supplies of meats are being steadily pulled down, in stock, despite the heavier packing of them for the season, although that it is conceded that the current packing is of a modified order.

The chief reason, indeed, for the current full prices for hogs is found in the active call from consumers for meats, not only from home sources, but from the other side, and which latter is chiefly satisfied by the liberal volume of consigned stock.

The open demands from Europe are necessarily light, on account of the large consignment to it by packers.

The demands for lard from the English and Continental markets are, also, small, and because of the liberal shipments direct by the packers.

Nevertheless, a decidedly larger volume of

both meats and lard is finding its way to Europe this season, if chiefly in the way of consignments.

More than 4,000,000 pounds lard, in excess of the quantity of the previous year, were shipped last week, and the total for the week is 11,675,967 pounds, against 7,328,703 pounds corresponding week last year. The United Kingdom took last week 4,437,293 pounds, and the Continent 3,639,497 pounds. Since Nov. 1, the exports of lard are greater by nearly 17,000,000 pounds than for last year for the same time, and they are 460,904,371 pounds and 444,036,109 pounds, respectively. The Continental markets have taken since Nov. 1, 215,288,342 pounds lard (214,176,890 pounds same time last year), and the United Kingdom 193,504,010 pounds (189,405,222 pounds same time last year).

The meat shipments show a very important gain to the United Kingdom markets, and are generally about 12,000,000 pounds ahead of those from Nov. 1 of last year. Last week out of total shipments of 14,212,782 pounds meats, there were 12,430,845 pounds for the United Kingdom markets and 1,098,350 pounds to the Continent.

Since Nov. 1, the United Kingdom has taken 403,132,083 pounds meats, against 376,111,219 pounds last year, same time, and the Continent 50,469,851 pounds, against 47,320,332 pounds last year, same time, while the total meat shipments since Nov. 1 have been 470,349,969 pounds, and 438,148,821 pounds for the two years.

All over the south, southwest and at the eastern sources, the meat consumption is of a brisk order, while that the lard consumption is well up to that of the previous year. The compound lard is being more freely used than in last year.

THE W. J. WILCOX

LARD AND REFINING COMPANY

NEW YORK
OFFICES: 27 Beaver Street

Refiners of the Celebrated
Wilcox and Globe Brand

PURE
REFINED
LARD



TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—The London auction sale on Wednesday showed 3d@6d. advance in prices, where 800 casks were sold out of 1,100 casks offered.

The foreign markets generally, those upon the Continent, as well as in the United Kingdom, would appear to be in strong position, and as based largely upon very good consumptive demands for this season of the year, and the fact that the home productions there have fallen off, while that the importations from La Plata and Australia are by no means of a large order.

The European markets are not taking much tallow from this country, for the present, neither have they bought, latterly, material quantities of grease.

Yet by steadily moving up a peg in their prices the European markets are watched with a good deal of interest here, as it portends some demand upon our markets.

There is no question but that the tone of the foreign markets tends to talk here of steadier holding of supplies. It, however, does not get beyond that.

Our markets have got in the rut, usual in the summer time, and they are offering very little of interest. To say that they are good, with a steady tone to their prices, about covers the situation.

There is no pressure to sell, by the melters, and indeed the demand, which is of a conservative order, is sufficiently steady to use up the productions, or at least to prevent them becoming at all burdensome.

The productions have fallen off, as usual at this time of the year.

When an accumulation of city hoghead tallow is made it seems to have demand to absorb it. There is no very marked supply of it just now, although a moderate quantity of it could be had at 4½c. The best open bid is 4¼c., but it may be doubted that less than 4¾c., at least, at this writing, would be accepted.

In a general way the market prices may be called steady, and that they have not changed materially for a couple of weeks, except, we think, that the edible grade is slightly more in the buyers' favor, on a slightly increased make of it and narrow demand.

The country made tallow is not in supply in excess of actual needs of the soapmakers; indeed, the prime lots of it are rather closely bought up as they arrive, and they show, as

well, a steady line of prices. There have been sales of 275,000 pounds country made at 4¾@4½c. for good to prime, and fractionally at 4½c. for the ordinary prime lots. The kettle lots are from 4¾@5c.

The city tallow in tierces is held at about 4½c., but is not at all plenty yet, having very little demand.

The city edible tallow has been had at a decline to 5½c.

The western markets are only moderately active, and show essentially the line of prices made in the week before.

(Continued on page 42.)

OLEO OIL.—Rotterdam has advanced to 57 florins, where there is an increased demand and moderate importations. New York quotes stronger and at 9½c. for choice, 8¼c. for prime, 7c. for medium and 6¼@6½c. for low grade.

OLEO STEARINE.—There has been very little trading interest through the week. The compound lard business is not brisk enough to force the compound makers into the market for additional supplies of the stearine, and they are depending upon, while steady reducing their accumulations of the stearine. But the pressers, on the protracted dull demands for the stearine, are making steady accumulations of it, and the supply is especially liberal at the west. The market positions as to prices are 7¼c. in New York, and 7½c. in Chicago. Sales of 200,000 pounds in New York at 7¼c. At the close the market has advanced, with up to 8c. asked, after the sale of 100,000 lbs. at 7½c.

LARD STEARINE has little attention of the refined lard people, and is quoted at 7½c. for western and at 8@8½c. for city.

COTTONSEED STEARINE.—There is little supply on sale, as deliveries on contracts about absorb the offerings. Indeed, at about 4¼c. per pound.

GREASE.—Shippers are showing a little more interest. Otherwise the demands are of a careful order. It is hard to sustain steady prices. Yellow quoted at 3½@3¾c.; bone at 3½@3¾c.; house at 3½@3¾c.; choice white at 4¾c.; ordinary lots of "A" white at 4¾@4¼c., and "B" white at 4¾c.

GREASE STEARINE.—There is only a moderate supply, and the light calls for it keep prices steady. Yellow quoted at 4¾c.; white at 4¾c.

PALM OIL.—Demands are light, but as stocks are only moderate there is a very regular market. Red quoted at 5½c. Lagos at 5½c.

NEATSFOOT OIL.—Demands are for jobbing quantities and limited as usual at this time of the year. Prices show little change. Prime quoted at 49c.; 30 test at 88c.; 20 test at 94@95c., and 40 test at 63c.

COCOANUT OIL.—Very little buying interest, and sales essentially in jobbing quantities and at steady prices. Ceylon, spot, 6¾c., and shipments at 6¼@6½c.; Cochin, spot, 7¼@7¾c.; do., shipments, 7c.

LARD OIL.—There is a very moderate distributing business and at steady prices. Prime quoted at 56@58c. for small lots.

CORN OIL.—Export movements are moderate. But the market has a steady tone. Quoted at \$3.70@\$4 for small and large lots.

CATTLE FOR TRINIDAD.

The Canadian commercial agent at Port of Spain, Trinidad, reports, under date of May 3, 1905, that in the year ended March 31, 1904, there were imported into that colony 7,033 oxen, bulls, cows, etc., not one of which came from Canada, and only two (for breeding purposes), from the United Kingdom. Venezuela supplied 6,970 head and the British West Indies the remainder. The agent continues:

I had an interview to-day with the largest importer of cattle here. He slaughters 240 cattle monthly, and expressed surprise that this market was not exploited by Canadian cattlemen. He was of the opinion that, given proper freight facilities, it would pay as well to send oxen here as to England, and the matter is one which merits the attention of those in the Dominion interested. The cattle received from Venezuela are comparatively small, the average live weight being about 850 pounds.

The import charges per head are 10s. (\$2.43) duty, 1s. (24 cents) inspection fee, 1s. weighing fee, and the average value per head, landed, is about 610s. (\$31.63). Owing to weather conditions, the meat is very poor from January to August. It improves from September to December, but can hardly ever be marked as first class. A certain quantity of frozen American beef comes here, but there is a prejudice against it, and it does not enter into serious competition with fresh meat.

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BREEDS OF CATTLE, HOGS AND SHEEP IN FRANCE.

United States Consul-General Gowdy, Paris, in a letter to the State Department, gives the following information regarding the cattle, hogs and sheep of France:

Nearly forty breeds or subbreeds of cattle were enumerated in the catalogue of the agricultural show held in Paris last month. In some cases a breed has local names in different departments, or the difference is very slight, and may be due to climatic influence.

Oxen are still used in many parts of France for agricultural or draft purposes, and large, powerful, mild-tempered animals are preferred. Foremost may be placed the Charolais breed, which comes from the Department of Saone-et-Loire (east central part of France). The color of the animal is now almost white, the yellow and red varieties having been bred out; the height at the shoulder is 4 feet 8 inches to 5 feet, and considerably more in the case of prize stock. The Charolais are small-boned, short-legged and small-horned. They fatten well and make excellent beefs, but the cows are but indifferent milkers, though they have sufficient nutriment for their calves. The prize animal at the show this year was a Charolais bullock aged 4 years and 10 months, weighing 2,975 pounds.

The Nivernais ox, which comes from an adjoining district, much resembles the Charolais, and, in fact, originated from the breed, which was introduced into the district about 1770 and crossed with Durhams imported from England in 1830. The Nivernais is one of the finest and most profitable breeds in France.

The Limousin oxen are bred in Dordogne, Correze and Haute Vienne. They are big-boned animals, pure white in color, and good workers, easily fattened, and the beef is of excellent quality. The race has been much improved by careful breeding within the last few years.

The Garonnaise ox, from Tarn and Garonne, is a bigger animal, with short horns, straight or pointing downward. It is also easily fattened and makes excellent beef, but the cows are not good milkers. The Garonnaise oxen are the largest in France, and are said to range from 4 feet 9 inches to 5 feet 8 inches in height at the withers.

The Salers breed comes from Auvergne and Puy de Dome. As this district is cold and mountainous, the oxen are housed several months of the year, and as a rule are badly fed and never fatten well. Under more favorable circumstances they make good beef. The cows are average milkers and produce the Cantal cheese, which is largely bought by the working classes in Paris and other large cities.

The Parthenaise ox, from Vendee, is a strong-boned, well-made animal, and the breed is esteemed as one of the best in France. The hide is yellow, the fore part dashed with red. The oxen fatten easily, and the cows are good milkers. The Nantaise and the Marchoise are sub-varieties of this breed.

The Gascon ox is of average size, varying from yellowish gray to burnt coffee color. The oxen do not fatten well, but are much used for draft purposes. The cows give little milk and soon go dry. Much the same may be said of the Bazas and Aquitaine breeds,

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but the latter fatten better and their hides make very supple leather.

The Agenaise cows are not good milkers, but fatten exceptionally well. The only other breeds deserving mention are the Femeline, from Doubs and Haute Saone, and the Montbeliard, of the same district. The Femeline stock has been much improved within late years, fattens easily, makes good beef, and the cows are fairly good milkers. The Montbeliard cattle are strong-boned, fairly well shaped, and of a red orange and white color. They fatten at an early age and the cows are excellent milkers.

Sheep.

The three best native breeds of sheep are the Charmoise, the Poitevin and Lauragais. The first named is a long-headed, barefaced sheep, with long, fine white wool. The breed originated in a cross between Barrichon ewes and English (New Kent) rams, and takes its name from the farm where originally bred. The Poitevin (from Deux Sevrès) furnishes from 4½ to 5 pounds of "half-fine" wool and makes fairly good mutton, but the sheep are wild, bad tempered and very large eaters. They fatten easily and attain weights of from 110 to 130 pounds.

The Lauragais, from Haute Garonne, are a strong breed, much appreciated for their long, fine wool and the quality of their meat. The wool is not so fine as that of the Lurzac breed (of which the Lauragais is a variety), but the milk is excellent and is used for making the celebrated Roquefort cheese. There is also a famous flock of sheep bred on the government stock farm at Rambouillet.

The first prize at the agricultural show at Paris was taken by a pen of "Disley-Merinos"—a cross between the well-known Merinos and the Disleys, a breed originally imported from England, which grows very fast, gives a tolerably fine wool, 8 to 10 inches long, and makes good mutton, which the Merino breed, though excellent in other respects, does not.

Hogs.

The best breed of hog is the Craonnais,

which often attains to the weight of 550 pounds in fifteen or eighteen months. The prize pig at the show, a "Manceau-Craonnais," both Mayenne breeds, weighed 763 pounds at the age of ten months and twenty-five days; three pigs, all of the same litter (Normand-Craonnais), aged eight months and twenty days, averaged 547 pounds each.

THE MEAT FAMINE IN GERMANY.

The German "Allg. Fleischer-Zeitung" in one of its recent issues makes some very pertinent remarks regarding the present high prices charged for meat, among others that the Agrarians are unable to make good their promises to supply sufficient cattle for slaughter to amply satisfy home consumption, on which grounds they would exclude all importations of foreign cattle, as they have virtually succeeded in doing with the result seen. In order to please one class of the population, the majority of Germans, especially the working classes, would in great measure be obliged to forego the consumption of meat, especially that of pork, which of all meats is consumed in the greatest quantities. The present rise in prices is a symptom of what is to follow!

AUSTRALIAN COTTON OIL RULES.

New regulations have been adopted by the Australian customs department for the methylation of cotton seed oil. The methylation is to take place in the presence of an officer, and the process is to be one which will destroy the food value of the product. In cases of soap manufacture, the pouring by a customs official of the oil into a vat will be accepted as sufficient. This destruction of the food value of all cottonseed oil exported to Australia is a government measure taken to prevent the use of the oil as a food adulterant.

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COTTONSEED OIL

WEEKLY REVIEW

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mill Superintendents' Association of the United States.

Alternately Firm and Weak Positions—Slack Undertone—Trading Wholly of a Speculative Order and Moderate in Volume—Continued Dull Export Demands.

There is little of interest to this market for the present. It is running essentially upon the lines that were reviewed last week, in that the trading is wholly of a speculative order, and that it steadily feels the protracted inaction in buying of the foreign markets and the compound makers. Besides that because of the inaction of buying on the part of the exporting and home consuming interests that it is hard to hold any firm prices that may be made spasmodically by speculation. Yet that because of the statistical position of the oil that if there should set in any demand from the exporters or the compound makers, that it would be very easy to advance prices.

And that this foreign and home demand, as well, must revive before a new crop season, seems to be conceded, however quiet it may be in the near future.

There is no question but that stronger market conditions would result from any increased inquiry for supplies.

But pending a display of buying interest the market is apt to have a tame look, while that speculation is likely to be influenced as the cotton crop news is of a poor order as to the prospects of the yield or otherwise.

There is no marked pressure to sell the future deliveries of the oil at any time, but only that limited offerings of it are, most of the time, more than the market can take care of; and that it yields a little from any firm position it may have assumed as the selling interests becomes of the most conspicuous order.

No one is looking for any material decline in prices, but only a slightly sagging tendency at times, and which latter would be due from the dullness. On the contrary, the expectations are at some time before the fall months, or at least before the period of new crop de-

liveries, for pronouncedly stronger market conditions, and as independent of new cotton crop news, and as based upon the statistical position of the oil itself, and the apprehended requirements of it before a new crop season. Of course if there should develop further unfavorable weather conditions for the cotton crop through to September it would go without saying that the oil market would be additionally benefitted.

The trouble with the oil market just now is, as implied, the dull demand from people who would take the oil for consumption.

But back of the market as a factor to ultimate development of more confidence, is the enormous consumption of the oil this year, and which leaves a shorter supply from the conceded fairly liberal production for the season than is promptly apprehended, but which would be of especial significance when the time comes, as it must come before a new crop season, for further demands for supplies of the oil.

It will be found that the exports for the season will reach, to Sept. 1, about 1,000,000 barrels, the total amount that we had pointed out weeks since as the probable season's export movements of, as this is shown by the fact that the exports with the close of this week are about 915,000 barrels, and that as there are practically six weeks more to complete the season's movement, that with the well recognized contracts ahead with the exporters, that just about 85,000 barrels more will be shipped to Sept. 1, to make the indicated 1,000,000 barrels.

But through September and October, before the new crop oil can be had freely, the prospects are of material and perhaps liberal shipments to Europe of the current holdings of the oil, while before a new crop season the compound makers' demands for supplies are likely to be of considerable importance, however light all demands from the consumers and shippers promise to be in the near future.

There is no especial pressure to sell spot or near future deliveries, as the deliveries upon contracts continue light, and the market is not at all burdened by any pressure of actual oil.

The fact that the compound makers hold off from buying is on account of the conservative buying of compound lard, the distributors of which take supplies of it close to actual needs, and because of the fact that the pure lard market fails to increase materially in firmness.

The compound makers, as is well understood, contracted months since largely ahead for cotton oil, many of them at materially lower prices than those current for the oil, and they will get deliveries upon these contracts through July, as they have been getting them for two or three months past. Indeed, some of these compound makers have contracts for delivery along as late as September, while others would have to buy in August. But the force of their demands will, of course, depend upon the developments of the pure lard market, and which, at present, is not promising for a material advance in its prices in the near future, while to increase the compound lard business and to enlarge the consumption of cotton oil, a better position of the pure lard market would be needed.

NEW YORK TRANSACTIONS.—At the close of last week the market had advanced $\frac{1}{4}$ c. on the early months, and showed steadiness on September and October. There were sales then of 400 barrels prime yellow, August, at 29c., and 700 bbls. September at 29 $\frac{1}{4}$ c.; prices on the call then were: July at 28 $\frac{1}{2}$ c.; August at 28 $\frac{1}{4}$ c.; September at 29 $\frac{1}{2}$ c.; October at 30 $\frac{1}{4}$ c.

On Monday the market opened firm and in part $\frac{1}{4}$ c. higher, more particularly for the early deliveries. Sales, 2,000 bbls. prime yellow, July at 28 $\frac{1}{4}$ c.; 1,000 bbls. do, September at 29 $\frac{1}{4}$ c.; 200 bbls. do, October, at 30 $\frac{1}{4}$ c., and 100 bbls. do at 30 $\frac{1}{4}$ c.; prices then

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on the calls: July at 28@29c. and 28½@28½c.; August at 28¾@29¼c. and 29@29½c.; September at 29½@29¾c. and 29¾@30c.; October at 30@30¼c. and 30¼@30½c.

On Tuesday there was a turn to lower prices, with a decline of ¼@½c.; sales, 1,000 bbls. prime yellow, September, at 29½c.; 1,300 bbls. October at 30c.; prices on the calls: July at 28@28½c. and 28½@28½c.; August, at 28¾c. Prices on the calls: July at 29½c.; October at 30@30¼c. and 29¾@30c.

On Wednesday the market opened dull and rather easy, yet not particularly changed and closed quiet, with barely material change for the day. Sales, 100 bbls. prime yellow, August, at 28¾c. Prices on the calls: July at 28@28½c.; August at 28½@29c.; September at 29½@29¾c.; October at 29¾@30¼c., and 30@30¼c.

(Continued on page 42.)

Continued Dull Foreign Demands.

While there is steadily moderate quantities of the oil going out to Europe, and that there is no effort on the part of Europe to resell, whereby the inference is that Europe needs all of the oil it is getting on contracts, yet the fact remains that there is no further buying interest thence, and that the general export demand is now lifeless.

The shipments for the season thus far are large, or about 915,000 barrels, and the calculations are that a good deal more of it will be taken by the foreign markets before a new crop season.

Compound Makers' Demands.

There has been nothing of importance in the way of trading from the compound makers, and who will likely suspend buying interest until they have used up their contract deliveries, and particularly if the lard market remains in position by which the compound lard trading would continue to run in a conservative way. The compound lard is upon a good competing basis with pure lard, and largely so because the compound makers contracted for cotton seed oil ahead at an early period of the season at lower prices than those current. Yet with the present cheaper cost of oleo stearine the present prices of the cotton oil would not be disadvantageous to the compound makers, as against the prices of pure lard. The compound makers before buying further cotton oil, would, probably, allow their accumulated supplies of it to wear away, or would require a more significant, than at present, pure lard market.

The Lard Market.

There is little animation to the lard market, although somewhat freer speculation in it than was noted a few days since. There is little promise now of a very marked advance in its prices in the near future, and indeed but few changes in its prices are expected, although the influences are more of a bullish than bearish factor, except as respects the full stock of the lard, although this, indeed, would be under some consideration of the position, a reason for well supported prices for the lard.

COTTONSEED OIL IN LARD.

In reviewing a series of tests made to determine the best method for discovering the presence of foreign fats, usually cottonseed oil, in lard, the Bureau of Chemistry of the United States Department of Agriculture, issues a bulletin containing the following:

"A great number of tests for cottonseed oil mixed with lard have been submitted, but practically without exception they have proved valueless. The two tests on which the chemist has chiefly based his decision as to the appearance of cottonseed oil in lard are the Bechi reaction, due to the reduction of silver nitrate, and the Halphen test, a crimson color formed when the cottonseed oil is heated with a little sulphur dissolved in carbon bisulphid. But the reactions in these tests appear precisely the same in the pure lard made from hogs fed on cottonseed meal and in lard adulterated with a small amount of cottonseed oil, and in so far the tests are failures.

Now, as a matter of fact, there is little lard made from hogs fed on cottonseed meal. But it is indisputable that some cottonseed meal is fed to hogs, and some of the lard may get on the market, and Mr. Elton Fulmer, of the Washington Agricultural Experiment Station, who has conducted extensive experiments in feeding hogs on the meal, has shown that pure lard from hogs so fed will give as strong tests for cottonseed oil as lard mixed with 15 per cent. of the oil itself. So although there is little likelihood that lard from hogs fed on cottonseed meal would be involved in any litigation, nevertheless a doubt is cast upon these ordinary tests which makes them of very little value in legal proceedings.

"Recently a study of the non-fatty substances which occur in the lard and cottonseed oil was made by Bomer, with the hope of finding a method of detecting such adulterations with certainty, and he has developed a very satisfactory and exceedingly delicate process for determining the presence of any vegetable fat in lard. This method depends on the fact long known that there is present in all vegetable fats, but not in pure animal fats, a small amount of a certain alcohol, phytosterol, which has a definite crystalline form, and a definite melting point. These crystals are in general described as "needle shaped," and at the end form an angle of 108 degrees. On the other hand, in animal fats there occurs another alcohol, cholesterol, which has a different melting point and an entirely distinct crystalline form, having the appearance of thin rhombic plates. Mixtures of phytosterol and cholesterol produce crystals entirely different from either one of these, being telescopic in shape and easily recognized under

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the microscope. These peculiar telescopic forms of crystals are obtained with as little as 12 per cent. of phytosterol and 88 per cent. of cholesterol, or about 6 per cent. of cottonseed oil and 94 per cent. of lard.

"Smaller amounts of cottonseed oil can be recognized under the microscope by the form of the crystals, but it is not safe to depend on the microscope where so little of the oil is used. The melting point of the acetates must be used for the detection of from 2 to 4 per cent. of the cottonseed oil. These are prepared by heating the alcohols with acetic anhydride and crystallizing. Cholesterol acetate from pure lard has a melting point of 113 degrees to 114 degrees C., while the alcohol from lard containing 116 degrees C., and 4 per cent. raises it from 118 degrees C. to 119 degrees C.

Thus, a method is formulated by which small amounts of cottonseed oil may be detected, and which possesses the great advantage over other tests that it has a scientific basis and is not affected by methods of manufacture nor accidental impurities. The question is at once raised, however, on account of the peculiar results in all other tests when lard from hogs fed on cottonseed meal is tried, whether phytosterol might not pass into the animal fat and thus vitiate the method.

Now, it is a well-established fact that no phytosterol, but only cholesterol, occurs in animal fats; therefore none of the phytosterol which is in plants enters into the fat of the animal which feeds upon them. For example, the hog fed on corn or other cereals takes considerable quantities of phytosterol into its digestive tract, but there is no record of phytosterol being found in the lard. As most plants contain phytosterol and most animals eat plants, the failure to find phytosterol in numerous tests for it produces a high probability that phytosterol of plants does not pass into the fat of animals. So we should not expect the phytosterol of cottonseed meal to act differently.

"But in order to settle so important a matter experimentally, a number of samples of lard from hogs fed on cottonseed meal at the Washington Experiment Station was obtained. These lards all gave the usual color tests that would be given by products containing added cottonseed oil, varying only in degree, as though from 1 to 15 per cent. of cottonseed oil were present. Accordingly, as far as these ordinary tests showed, these

lards were to be considered adulterated with cottonseed oil. But the examination of the alcohols present gave a very different result. The process of crystallization was like that of other pure lard, and the microscopic examination showed the crystals to be cholesterol.

"The more delicate test for the presence of the phytosterol, that of the melting point of the acetate, was also applied to all the samples of pure lard from cottonseed fed hogs, and the melting point was found to be from 113 degrees to 114 degrees C. The cholesterol from tallow gave an acetate melting at 114 degrees C., and the cholesterol from gall stones an acetate melting at 114 degrees C. This shows that the alcohol of these lards is pure cholesterol, and that this method enables us to distinguish between adulterated lards and pure lards which give the cottonseed reactions because of feeding cottonseed meal.

"Another and perhaps more important feature of the value of this test, is that it may be used in detecting cottonseed oil in lard not affected by feeding on cottonseed meal, but in which other tests for the oil fail for another reason. This reason is that cottonseed oil after being heated to about 250 degrees C. for twenty minutes does not give any of its characteristic reactions, so that if such an oil were used in adulterating lard it would not be detected by the ordinary tests. But heating does not affect the phytosterol in the oil. Crystals from a lard mixed with 10 per cent. of a heated cottonseed oil did not respond to either the Bechi or the Halphen tests, but there is no difficulty in detecting the adulteration by the new method, as the same peculiar telescopic crystals are present. The melting point of the acetate was also 120 degrees C., showing conclusively the presence of considerable quantities of phytosterol.

"Thus, it is seen that this method enables the chemist to detect cottonseed oil in whatever form it may be present, and that it is not affected by any method of feeding or any process of manufacture."

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, July 20.—Prices remain about the same as last week and changes have been very small. The statistical position is exceedingly strong, especially considering

the poor outlook for the growing crop. On the other hand, the demand is a mighty slack one.

When asked to give his opinion on the future course of the market, a prominent trader said the other day, "If the demand remains as poor as it is at present there will hardly be enough of a market for all the speculative September oil and the bears can manipulate the price down unless the long interest in September is transferred to a later month. If, on the other hand, however, the demand which we usually get from abroad and also from domestic consumers in August sets in as usual this year, the September and October options will have to move up in price considerably on account of the scarcity of offers and with no new crop oil available at anything like present figures. This gives the situation in a nutshell. In the meantime the trading in New York is exceedingly dull. The traders all seem to have realized the truth of the above argument and are sitting on the fence, ready to jump either way.

Produce Exchange prices at noon to-day were as follows: Prime summer yellow cottonseed oil, July, 28½c. bid and 28¾c. asked; August, 28¾c. bid and 29¼c. asked; September, 29½c. bid and 29¾c. asked; October, 30¼c. bid and 30½c. asked. We further quote: Prime winter yellow cottonseed oil, 31c.; prime summer white cottonseed oil, 31c.; Hull quotation of cottonseed oil, 18s.; prime crude oil in tanks in the Southeast, October, November, December, 24c.

CABLE MARKETS

Trieste.

(By Cable to The National Provisioner.)

Trieste, July 19.—Cottonseed oil market is dull. Quote prime summer yellow at 47 francs and winter old at 49 francs.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, July 19.—Cottonseed oil market is quiet and steady. Prime summer yellow, nominal, 23 florins; butter oil, 24 to 25 florins, according to quality; off oil at 22 florins.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, July 19.—Cottonseed oil market is slow. Quote prime summer yellow 18s. 3d. and off oil at 18s.

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, July 19.—Cottonseed oil market is quiet. Quote prime summer yellow at 45 francs and winter at 48 francs.

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, July 19.—Cottonseed oil market is inactive. Sales of good brands off oil at 36½ marks; prime summer yellow at 37½ marks. Butter oil is neglected at 39½ marks.

SOUTHERN MARKETS

Atlanta.

(Special Wire to The National Provisioner.)

No crude oil offering; no inquiry. Meal nearly exhausted. Prime quoted \$21@21.50 f. o. b. mill. Hulls in slightly better demand at \$4.75, loose. Weather perfect for cotton.

Memphis.

(Special Wire to The National Provisioner.)

Cottonseed products almost exhausted. Prime crude nominally \$22.50; prime meal, \$22.50; hulls, \$3.25, loose.

COTTONSEED OIL EXPORTS

Exports of cottonseed oil for the week ending July 20, 1905, and for the period since September 1, 1904, were as follows:

From New York.		For Week.	Since Sept. 1.
Port.		Bbls.	Bbls.
Alesund, Norway	—	50	—
Aberdeen, Scotland	—	130	—
Acajutla, Salvador	—	25	—
Adelaide, Australia	—	292	—
Alexandria, Egypt	—	3,771	—
Algiers, Algeria	—	4,706	—
Algoa Bay, Cape Colony	—	146	—
Ancona, Italy	—	875	—
Antigua, West Indies	—	76	—
Antwerp, Belgium	—	3,486	—
Auckland, New Zealand	—	96	—
Ausa, West Indies	—	6	—
Barbados, West Indies	75	2,007	—
Bathurst, Africa	—	9	—
Belfast, Ireland	—	50	—
Belize, British Honduras	—	4	—
Bergen, Norway	100	528	—
Bone, Algeria	—	458	—
Bordeaux, France	—	5,092	—
Braila, Roumania	—	5,092	—
Bremen, Germany	—	314	—
Bridgetown, West Indies	47	556	—
Bristol, England	—	10	—
Buenos Ayres, Argentine Republic	—	2,538	—
Calbarien, Cuba	—	22	—
Cairo, Egypt	—	90	—
Campeche, Mexico	31	31	—
Cape Town, Cape Colony	—	631	—
Cardenas, Cuba	—	5	—
Cardiff, Wales	—	10	—
Cartagena, Colombia	—	4	—
Cayenne, French Guiana	34	385	—
Christiana, Norway	290	1,896	—
Christiansand, Norway	—	105	—
Cienfuegos, Cuba	—	168	—
Ciudad Bolivar, Venezuela	—	20	—
Colon, Panama	27	547	—
Conakry, Africa	—	45	—
Copenhagen, Denmark	—	3,396	—
Corinto, Nicaragua	—	186	—
Curacao, Leeward Islands	—	30	—
Dantzig, Germany	100	4,900	—
Delagoa Bay, East Africa	—	21	—
Demerara, British Guiana	30	1,251	—
Drontheim, Norway	25	75	—
Dublin, Ireland	—	76	—
Dundee, Scotland	—	25	—
Dunedin, New Zealand	—	41	—
Dunkirk, France	—	854	—
East London, Cape Colony	—	150	—
Fiume, Austria	—	2,000	—
Fort de France, West Indies	242	2,206	—
Fremantle, Australia	—	58	—
Frontiera, Mexico	—	10	—
Galatz, Roumania	—	2,181	—
Genoa, Italy	—	32,509	—
Georgetown, British Guiana	30	426	—
Gibraltar, Spain	—	940	—
Glasgow, Scotland	250	8,539	—
Göteborg, Sweden	170	3,281	—
Guadaloupe, West Indies	—	1,565	—
Guantanamo, Cuba	—	31	—
Guayaquil, Ecuador	—	45	—
Halifax, Nova Scotia	—	—	—
Hamburg, Germany	—	3,105	—
Havana, Cuba	—	2,095	—
Havre, France	50	27,413	—
Hong Kong, China	—	108	—
Hull, England	—	325	—
Jamaica, West Indies	—	113	—
Kingston, West Indies	—	2,815	—
Königsberg, Germany	—	1,700	—
Kotons, Africa	—	10	—

La Guaira, Venezuela	—	564
La Libertad, Salvador	—	9
Leghorn, Italy	—	13,261
Leith, Scotland	50	100
Liverpool, England	260	10,191
Lorenzo Marques, East Africa	25	2,774
Macoris, Santo Domingo	—	9
Malmo, Norway	—	1,842
Malta, Island of	219	218
Manchester, England	—	1,882
Manaos, Brazil	—	606
Maracaibo, Venezuela	—	20
Marseilles, France	—	8
Martinique, West Indies	127	117,102
Massowah, Eritrea	—	2,395
Mauritius, West Indies	—	158
Melbourne, Australia	144	79
Messina, Italy	200	561
Montego Bay, West Indies	—	200
Montevideo, Uruguay	239	58
Nagasaki, Japan	—	5,261
Naples, Italy	—	12
Newcastle, England	—	5,127
Oran, Algeria	—	255
Panama, Panama	—	4,210
Para, Brazil	—	107
Pernambuco, Brazil	—	27
Phillippeville, Algeria	—	47
Pointe a Pitre, West Indies	—	503
Port Antonio, Jamaica	—	225
Port au Prince, West Indies	—	94
Port Limon, Costa Rica	—	56
Port Natal, Cape Colony	—	58
Porto Cabello, Venezuela	—	170
Port of Spain, West Indies	—	7
Port Said, Egypt	—	112
Progreso, Mexico	—	731
Puerto Plata, Santo Domingo	—	145
Rio Grande do Sul, Brazil	—	611
Rio Janeiro, Brazil	—	4
Rotterdam, Holland	100	7,418
St. Croix, West Indies	—	9,827
St. John, N. B.	—	40
St. Johns, West Indies	—	24
St. Kitts, West Indies	—	232
St. Martins, West Indies	—	1,026
St. Thomas, West Indies	—	244
Sanchez, Santo Domingo	—	37
San Domingo City, Santo Domingo	—	229
Santiago, Cuba	—	585
Santos, Brazil	197	149
Savannah, Georgia	—	2,191
Shanghai, China	—	6
Sierra Leone, Africa	—	19
Singapore, India	—	10
Southampton, England	—	148
Stavanger, Norway	—	1,400
Stockholm, Sweden	100	860
Sydney, Australia	50	6,925
Tampico, Mexico	—	890
Tangier, Morocco	—	792
Trieste, Austria	300	8
Trinidad, Island	—	750
Tunis, Algeria	—	33,525
Valetta, Maltese Island	—	924
Valparaiso, Chili	—	110
Varna, Bulgaria	—	1,908
Velle, Denmark	—	2,117
Venice, Italy	1,150	75
Vera Cruz, Mexico	—	290
Wellington, New Zealand	28	40,047
Yokohama, Japan	—	132
Totals	4,680	98
		413,125

From New Orleans.

Antwerp, Belgium	—	16,200
Belfast, Ireland	—	725
Bremen, Germany	—	4,763
Copenhagen, Denmark	—	2,830
Cuba	—	103
Genoa, Italy	—	2,531
Glasgow, Scotland	—	5,518
Hamburg, Germany	—	23,597
Havana, Cuba	—	1,377
Havre, France	—	3,000
Hull, England	—	600
Liverpool, England	400	15,450
London, England	—	8,880
Manchester, England	—	850
Marseilles, France	—	31,020
Porto Rico, West Indies	—	65
Rotterdam, Holland	—	117,396
Stettin, Germany	—	50
Trieste, Austria	—	37,439
Venice, Italy	—	2,810
Totals	400	275,299

From Galveston.

Antwerp, Belgium	—	8,965
Hamburg, Germany	—	3,486
Liverpool, England	—	2,980
Marseilles, France	—	5,926
Rotterdam, Holland	—	80,496
Tampico, Mexico	—	3,263
Trieste, Austria	—	11,853
Vera Cruz, Mexico	—	13,431
Totals	—	130,433

From Baltimore.

Antwerp, Belgium	—	1,650
Belfast, Ireland	—	100
Bremen, Germany	100	640
Bremerhaven, Germany	—	280
Copenhagen, Denmark	—	805
Hamburg, Germany	—	1,735
Havre, France	—	206
Leith, Scotland	—	4,328
Rotterdam, Holland	—	536
Stettin, Germany	—	—
Totals	100	10,308

From Philadelphia.

Antwerp, Belgium	—	104
Coin Island	—	1
Glasgow, Scotland	—	250
Rotterdam, Holland	—	9,250
Totals	—	9,705

From Savannah.

Hamburg, Germany	—	5,804
Rotterdam, Holland	—	22,671
Stettin, Germany	—	900
Trieste, Austria	—	200
Totals	—	29,575

From Newport News.

Hamburg, Germany	—	14,584
Liverpool, England	—	1,400
London, England	—	145
Rotterdam, Holland	—	10,555
Totals	—	26,684

From Pensacola.

Genoa, Italy	—	771
Liverpool, England	—	416
Marseilles, France	—	4,284
Mitazzo	—	204
Venice, Italy	—	102
Totals	—	5,777

From All Other Ports.

Canada	3	14,980
Cuba	—	138
Guatemala	1	1
Honduras	1	1
Liverpool, England	—	21
Mexico	—	9
Newfoundland	—	1
Nicaragua	2	2
Salvador	10	10
South America	—	112
Totals	17	15,284

Recapitulation.

From New York	4,680	413,125
From New Orleans	400	275,289
From Galveston	—	130,433
From Savannah	—	29,575
From Newport News	—	26,684
From Baltimore	100	10,308
From Philadelphia	—	9,705
From Pensacola	—	5,777
From all other ports	17	15,284
Grand totals, all ports	5,197	918,180

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HIDES AND SKINS

(Daily Hide and Leather Market.)

Chicago.

PACKER HIDES.—The market continues to display the same strong tone and there is a much more bullish feeling on the part of packers for branded varieties. One of the leading packers has advanced asking prices from $\frac{3}{4}$ to $\frac{1}{2}$ c. on all kinds of branded stock and is not offering any more ahead. This packer will not offer any more native steers until to-morrow. It develops that a large tanner was probably the buyer of native steers at 15c. with branded at 13 $\frac{1}{2}$ c. for butt brands and Colorados, as the dealer mentioned yesterday as probably taking them for speculative purposes was bidding 14 $\frac{1}{2}$ c. and intimating that he might pay 15c. Heavy Texas steers continue quotable at 14 $\frac{1}{2}$ c. and since sales of light and extremes Texas involving large quantities packers are quoting these at 14 $\frac{1}{4}$ and 13 $\frac{1}{4}$ c., respectively, despite the fact that some were let go at 14 and 13c. Butt brands and Colorados rule at 13 $\frac{1}{2}$ c. for recent salting as per late sales and branded cows at 13 $\frac{1}{4}$ c. The packers are feeling exceptionally firm on all weight native cows and one packer is offering to sell July heavy native cows ahead at 14c. and might sell light cows at 13 $\frac{3}{4}$ c., as he is making a much larger percentage of light than heavy weights. Along with other sales reported yesterday of butt brands and Colorados at 13 $\frac{1}{2}$ c. and branded cows at 13 $\frac{1}{4}$ c., a large packer also sold all three varieties at the same advanced figures. One packer sold 5,000 late June and July butt brands and Colorados at 13 $\frac{1}{4}$ c. There is a good inquiry for native bull hides and also for branded bulls. An oak sole and belting butt tanner reports taking two different packers offerings of native and branded bulls, running back in salting at 9 $\frac{1}{4}$ c. for the natives and 9 $\frac{1}{2}$ c. for the branded, but in the face of this one big packer reports moving 3,500 February and March native bulls at 10c. and it is being reported the hides were taken by this same buyer.

COUNTRY HIDES.—Each successive day develops a stronger market and the feature of the situation is that a dealer here has sold 3,000 buffs at the further advanced figure of 12 $\frac{3}{4}$ c. It is being rumored that a bid at the same price was declined for more, the dealer probably holding out for 13c. Heavy cows last sold at 12 $\frac{1}{2}$ c., though rumors were out as reported yesterday that better than this price had been paid, but the report is entirely without confirmation. The trading right along has been light, as little, if any, stock is offered. Extremes rule at

12 $\frac{3}{4}$ c. easily since buffs have sold up to this price. Heavy steers have been nominal right along, the absence of trading making it hard to get a basis for the market on this variety. We understand 13c. is being asked by certain holders for choice hides and the fact that 60 lb. and up country steers have been sold on the New York market at this price would appear to justify the advance asked. Older lots are nominal at 12c. for last sales and better asked. Branded steers and cows are firm in sympathy with the rest of the market and some exceptionally choice specially selected branded steers and cows have brought a full cent premium over the regular market for these. A nearby Wisconsin tanner is reported to have obtained 13c. for extreme light cows, but this is fully $\frac{1}{4}$ c. above the market here on these.

CALFSKINS.—A car of Chicago city skins has been sold at 14 $\frac{1}{4}$ c., establishing the market on the higher basis that dealers have been working for during the past week. Dealers also ask this price for outside cities with last sales at 14 $\frac{1}{2}$ c. Country calf continues nominal at 14c. Kips sell at 12 $\frac{1}{2}$ c. for good stock and 12c. for poorer lots and 12 $\frac{3}{4}$ c. asked for blocks running well for veal skins. Deacons are unchanged at 97 $\frac{1}{2}$ and 77 $\frac{1}{2}$ c., with certain parties holding out for 81.00 for light calf.

SHEEPSKINS.—The packers are now generally asking 90 to 95c. for shearlings on this market and \$1.15 and \$1.25 is a representative range for packer spring lambs. There is no trouble in disposing of country shearlings and lambs as fast as received at 40 to 65c. for shearlings and 50 to 90c. for lambs, quality governing the price.

New York.

DRY HIDES.—About 3,000 Puerto Cabellos, etc., sold at unchanged terms.

CITY SLAUGHTER HIDES.—The market being sold up there is nothing of consequence to report.

New York Country Hides and Skins.

(Special Report to The National Provisioner.)

GREEN SALTED COUNTRY BUTCHERS' HIDES AND SKINS.—Owing to the excited condition of packer values the market is somewhat affected, but trading not sufficiently strong to cause change in our previous quotations. There is no call for bulls and they are very slow. Quotations: No. 1 native steers, 60 lbs. up, 10 $\frac{1}{2}$ @11 $\frac{1}{2}$ c.; No. 2 native steers, 60 lbs. up, 9 $\frac{1}{2}$ @10 $\frac{1}{2}$ c.; No. 1 native steers, under 60 lbs., cows and heifers, all weights, 10@10 $\frac{1}{4}$ c.; No. 2 native steers, under 60 lbs., cows and heifers, all weights, 9@9 $\frac{1}{4}$ c.; No. 1 native bulls, 7 $\frac{1}{2}$ @8c.; No. 2 native bulls, 6 $\frac{1}{2}$ @7c. Branded hides are accepted as No. 2 in respective selections.

CALFSKINS (Trimmed).—The calfskin market is without any sales of volume and prices remain firm at quotations. 5 to 7 lbs., 95c.@\$1; 7@9 lbs., \$1.15@1.20; 9@12 lbs., \$1.54@1.50; kips, 12 lbs. up, \$1.60@1.75; deacons, 70@80c. 15c. less per piece on No. 2 and 20c. less on No. 2 kips.

CALFSKINS (Untrimmed).—No. 1, 7 to 15 lbs., 12@12 $\frac{1}{2}$ c.; No. 1, 15 lbs. up, 9@10c.; No. 2, 1 $\frac{1}{4}$ c. less per lb.

INFORMATION ABOUT ARGENTINA.

John Vavasour Noel, who is in Washington, accompanied by Dr. Salvador Praato, Argentine Consul at St. Louis, having just returned from the Argentine Republic, says:

"When you learn that in the Argentine Republic there are two hundred and forty million acres devoted to raising cattle and sheep, and that in 1900 more than thirty million cattle and one hundred million sheep were pastured on these immense ranges, you will understand why the Argentine meat trade is so important," said Mr. Noel.

"Recently several fast ships of large tonnage were built in English shipyards especially for the Argentine beef export trade. They are mammoth refrigerating plants, designed to enable the exporter to deliver beef in London, Liverpool and German ports from Buenos Ayres in a perfect state of preservation.

"Before the introduction of these ships the Argentine exporters were placed at a serious disadvantage in the markets of Europe. They were shipping beef in 'tasajo,' or the dried state, and cattle on the 'hoof,' which at the time seemed satisfactory enough. But the outbreak of the hoof and mouth disease brought about the English cattle embargo laws, and the Argentine cattle shippers were forced to adopt the modern refrigerating method of exporting their beef.

HOME MADE FIRE EXTINGUISHERS.

The hand grenades for extinguishing incipient fires may very profitably be made at every shop or factory instead of relying on the dealers of such contrivances, which latter is almost universally a very expensive experience. A satisfactory fluid is produced with 10 gallons of water, 15 pounds chloride of magnesia, 71-2 pounds salammmoniac, 4 pounds saltpetre, 4 pounds common salt. Put the solids into the water and when dissolved fill into suitable thin glass bottles and seal with plaster of paris. The directions for use are to throw the bottles at the base of the fire with sufficient force to break the bottle. The solution keeps indefinitely, does not freeze nor explode. A powder extinguisher is composed of 44 pounds salt, 33 pounds bicarbonate of soda, 11 pounds sulphate of soda, 11 pounds chloride of calcium, 11 pounds fine sand. Have ingredients dry and mix well.

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Before Disposing of HIDES
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ROCK SALT will bring more money on account
of receiving a thorough, honest cure. No lime
in RETSOF; just the pure Salt supplied by Nature.
We merely crush and screen to meet the
requirements. The fact that RETSOF spreads
evenly—being dry—causes the hide to be cured
uniformly; the Salt can be used several times,
thus making it the most economical we know of.
That we are never too old to learn is exemplified
by the following: A hide man who had
used evaporated Salt for many years was in-
duced recently to put down a pack of 85 hides
with RETSOF and a pack of same number with
evaporated; when taken up the pack salted with
RETSOF had increased in weight 34 lbs. more
than the other pack.
If you are skeptical give RETSOF a similar
trial, that is all we ask.

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INTERNATIONAL SALT CO.

SCRANTON, PENNA., or CHICAGO, ILLS.



CHICAGO SECTION



Board of Trade memberships \$3,250 net to buyer.

Average weight of hogs last week, 226 lbs., the heaviest of the year.

Chicago wishes to thank New York for trimming that fellow who rocked the boat.

Swift & Company's sales of fresh beef in Chicago for the week ending July 15 averaged 6.44 cents per pound.

There does not seem to be anything left of Russia but its attitude; should be thankful to have that much left.

Commissioner Patterson, when told of the unsanitary condition of the sanitary office, said: "Oh, very well, go to the Bureau of Complaint."

William Dubinski, a butcher for the Hammond Company, and winner of several prizes in cattle killing and dressing contests, was overcome by the heat on the killing floor Monday last and died within a short time.

Walter Scott, otherwise "Scotty," did not stir up New York one hundredth part as much as Steve Brodie used to when he'd break loose now and again. He seemed to tame down terribly after he struck Chicago.

The Live Stock and Grain Association is progressing very satisfactorily in its packinghouse project, and will locate as near to the Exchange building as it can get. The best of talent is connected with the scheme.

Lots of people, especially out-of-town folks, have an idea Chicago is Hades or next door anyway. Well, if they had been in Chicago last week all doubts as to its exact location would have been removed from their minds.

The board of boiler inspectors has discovered many boilers which have been installed without permits. A thorough canvass will be made and any boilers operating for which permits have not been taken out will be ordered shut down.

Charles A. Meade, the inimitable, who was assistant secretary of the International Live Stock Show, is now manager of the Chicago Automobile Club, 253 Michigan avenue. The factory never turned out any better all round fellow than Charles.

The Gaff Building near the Board of Trade has been sold by the Gaff estate of Cincinnati to Frederick Ayer, of Boston, Mass., for \$450,000. The building estimated at \$100,000 and the ground at \$350,000, or \$4,930 per front foot and \$82.15 per square foot.

Michael Donnelly, who engineered the last big stock yards strike, was the victim of a brutal assault by some half dozen armed thugs last Sunday. He was beaten nearly to death; in fact, they left him for dead. He, however, is recovering. So much for labor unions.

One of the bright things said in connection with the indictment of the packers is that from the funny man of the "Drovers' Journal": "Packers may be utilizing everything but the squeal, as they have often declared, but the grand jury seems to have discovered a process of using that, too, in their case." Yes, the ex-employee with a grudge can holler real loud!

Steve Ladd, Pete Hamler and George Junk went fishing a little while ago up in Will County. They were invited to a barn dance and not a one had a collar, so they sent Steve to the nearest town to get three—one 18, one 20 and one 21. Steve told the dry-goods fellow what he wanted and in turn was told, "You're in the wrong place—the harness shop is one block south."

Geo. P. Braun (of the old firm of Braun & Fitts, which later became Geo. P. Braun & Co., butterine manufacturers) died at Lake Geneva, Wis., last week, after an illness of several weeks. Mr. Braun was 56 years of age, and came here when a boy from Germany, working his way up through the grocery business, the South Water street butter trade and finally entered into the manufacture of butterine and became one of the largest and wealthiest manufacturers in the United States. Mr. Braun leaves a widow, son and daughter.

The local livestock exchange has adopted the following rule: "No member of this exchange shall employ or have any business relations whatever at the Union stockyards of Chicago with any non-member who after complaint shall have been filed with the board of directors against him and who after having been afforded the opportunity of a hearing shall neglect to avail himself thereof or who after having had a hearing shall have been held by the board of directors of the

exchange guilty of any dishonest conduct and the said board, in the best interests of its members and the community at large, is hereby authorized to pass upon and determine the question of guilt of any one thus accused by a majority vote of its members duly assembled in regular or special session and it may in a similar manner subsequently annul such disbarment. A similar law is in force at Kansas City, where it was recently made the subject of a legal test, a disbarred member seeking to enjoin the exchange from enforcing the rule on the ground that it was in restraint of trade and monopolistic. The court refused the injunction, sustaining the right of the exchange to make the rule.

DEATH KNEEL OF THE BUCKET SHOP.

Barnum said that the American people liked to be humbugged. From my investigations as to cheats and frauds of various descriptions, I incline to the opinion that a great many of the American people like to be robbed. In fact, I know that they take the strongest chances of being robbed, rushing with pathetic eagerness and confidence into the traps and toils of the swindler and confidence man. Despite newspaper exposures, criminal prosecutions and funny paper cartoons, the reign of the "gold brick" is still in the land. Rogues flourish and victims multiply every day, from lovesick young men and young women seeking life partners through the medium of a bogus matrimonial agency to greedy and gullible persons trying to get rich quick through the agency of a bucket shop.

What is a bucket shop? Having investigated them for many years, under the auspices of the Chicago Board of Trade, for the purpose of putting them out of their pestiferous business, I think I ought to know. A bucket shop is a place where gambling of the skin-game order is carried on under a thin and impudent disguise of trading in stocks or grain. It is got up in the usual style of a broker's or commission office—a high blackboard chalked with rows of figures, a couple of dozen chairs for customers and a desk with brass railings behind which stand the agents or clerks of the bucket-shop keeper.

People think it strange to apply the name "bucket shop" to such a place, but from the origin of the word it is quite appropriate. At first it had no reference to any form of speculation or gambling. About half a century ago, in the east side of London, de-

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HIGHEST REFERENCE.

praved beer swillers went about with pails or buckets, draining every beer or porter keg they came across and picking up cast-off cigar butts. Then they rendezvoused and reveled in some squalid den, which was in consequence called a bucket shop. The name was introduced in the United States in the late '70s and was applied, on account of some resemblance to the cockney thieves' or hoboes' kitchen, to a small place where 'change manners were aped and grain and stock deals were counterfeited.

The difference between board of trade and bucket shop transactions is as wide as the poles asunder. Boards of trade and produce exchanges are great markets where the farm products of the country are dealt in, where buyer and seller meet, where vast amounts of property are transferred from the producer to the consumer, and prices are established. The bucketshop industry is a mere gamble on what legitimate traders may or may not do to affect prices. And it is a very one-sided gamble, immensely in the interest of the conscienceless bucket-shop shark. The man who tries to beat a bucket shop has an impossible task before him.

Take, for instance, the \$10 stock trade, which is the most popular deal among the patrons of bucket shops. Could there be a more insane performance on the part of the patron? He steps up to the order window, pays in \$10 and buys ten shares of something or other at \$110 a share. If there is a decline of three-quarters of a point—to \$109.25—the patron loses his \$10, the 25 cents being the commission charged by the bucket shop. The rise in price must be from \$110 to \$111.25 a share in order that the patron may gain \$10, after paying the 25 cents commission on his "speculation." The odds are over two to one in favor of the bucket shop. Yet people, apparently sensible but possessed of the devil of gambling that prevails in this country, will go to such places—for many will boldly enter a bucket shop who would shudder at being caught in an ordinary gambling den—and deliberately stake their money in the foolish hope of winning a fortune.

Often, when a person is fleeced by a bucket shop, he will lay his misfortune—it sounds more genteel—at the door of the board of trade. It was manipulations and fluctuations on the board that did the harm, he will say. This is unfair and misleading. The board of trade is to the bucket shops as a reputable trader is to a shoe-string gambler. It is a place of legitimate speculation—which, however, like all speculation, may be warped and distorted into gambling by money-hungry people. The board of trade is, as declared by the Supreme Court of the United States in a recent opinion, "a great market, where, through its 1,800 members, is transacted a large part of the grain and provision business of the world. Of course," continued the court, "in a modern market contracts are not confined to sales for immediate delivery. People will endeavor to forecast the future and to make agreements according to their prophecy. Speculation of this kind by competent men is the self-adjustment of society to the probable. Its value is well known as a means of avoiding or mitigating catastrophes, equalizing prices and providing for periods of want. It is

true that the success of the strong induces imitation by the weak and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn."

The foregoing paragraph, which shows in a nutshell the position of the amateur speculator, is an extract from the decision vindicating the Chicago Board of Trade in its long and persistent crusade against bucket shops, a fight which it has waged both for the maintenance of its own rights and dignity and for the protection of the public. The chief weapon of the board has been to deprive the bucket shops of the use of its quotations of the prices of grain and provisions. These quotations, based on the market ups and downs in the "pits" during business hours, are collected by the board at its own expense and handed to the telegraph companies, whose numerous instruments click in a corner of the hall, for distribution to the offices entitled to receive them; the telegraph companies being under special contract not to supply those quotations to any bucket shop or place where they may be used as a basis for bets or illegal contracts.

But the bucket-shopper in his voracious pursuit of spoil is daring, determined and resourceful. In order to steal the board's quotations he has at times adopted a system of wire tapping. However, wire tapping is sooner or later detected. Deprived by law of obtaining board of trade quotations under any pretense, the bucket shop must go out of business. And this is what must happen now that the Supreme Court of the United States has declared that the board's collection of quotations is "entitled to the protection of the law" and "stands like a state secret."

This decision is the handwriting of doom on the wall of every bucket shop in the United States. The blackboard will be taken down, the brass-railed desk will disappear and with it the human spider behind it. All the counterfeits of legitimate stock, grain and provision business will vanish and none

The "ABC" Disc Fan

For Packing Houses
Boiler and Engine Rooms
Etc., Etc.

Cools and Ventilates
Removes Steam and Fumes

We are experts in the solution of
problems pertaining to ventilation

American Blower Company

DETROIT

NEW YORK

CHICAGO

LONDON

but infatuated fools and dupes will regret their departure.

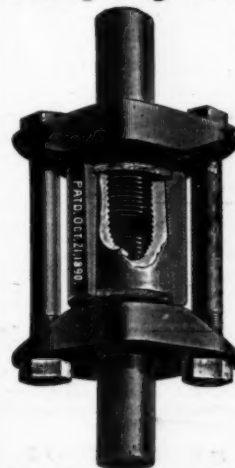
JOHN HILL, JR.,
Manager Department of Market Reports,
Chicago Board of Trade.

PROFITS IN BY-PRODUCTS.

Small packers get big profits from by-products. We can tell you how. Stillwell-Provisioner Laboratory, 36 Gold street, New York.

SEE THE LIST OF
BARGAINS
ON PAGE 48.

THE Climax Ammonia Coupling



Has been in use over 12 years and has never given any trouble. Each COUPLING is carefully tested to 300 pounds pressure and is warranted to make a permanently tight joint for AMMONIA. It is not affected by expansion or contraction.

The Western Cold Storage Co. of Chicago have over 6,000 in use and during seven years not one leaky joint has been discovered.

The Davies Warehouse and Supply Co., AGENTS.
20-32 North Clark Street, CHICAGO

CHICAGO PROVISION LETTER.

(Special Letter to The National Provisioner from
C. D. Forsyth & Co.)

Chicago, July 19.—We quote to-day's market as follows: Green hams, 10@12 ave., 10@10½; 12@14 ave., 9¾@9¾; 14@16 ave., 9¾@9¾; 18@20 ave., 9¾@9¾. Green picnics, 5@6 ave., 6½; 6@8 ave., 6¾; 8@10 ave., 6¾; 10@12 ave., 6¾. Green New York shoulders, 10@12 ave., 6¾; 12@14 ave., 6¾. Green skinned hams, 18@20 ave., 10½@10½. Green clear bellies, 8@10 ave., 10½; 10@12 ave., 9¾. No. 1 S. P. hams, 8@10 ave., 10½; 10@12 ave., 9¾; 12@14 ave., 9¾; 14@16 ave., 9¾; 18@20 ave., 9¾. No. 2 S. P. hams, 10@12 ave., 9¾; 12@14 ave., 9¾; 14@16 ave., 9. No. 1 S. P. skinned hams, 16@18 ave., 10½; 18@20 ave., 10½; 20@22 ave., 10½; 22@24 ave., 10½; 24@26 ave., 10; 26@28 ave., 9¾. No. 1 S. P. picnics, 5@6 ave., 6½; 6@7 ave., 6¾; 6@8 ave., 6¾; 7@9 ave., 6¾; 8@10 ave., 6¾; 10@12 ave., 6. No. 1 S. P. New York shoulders, 6@10 ave., 6¾; 10@12 ave., 6¾; S. P. clear bellies, 6@8 ave., 11¾; 8@10 ave., 10½; 10@12 ave., 9.

Prices on S. P. meats are all loose, f. o. b. Chicago.

CHICAGO PROVISION MARKET
Range of Prices.

SATURDAY, JULY 15, 1905.

LARD—(Per 100 lbs.)—			
September	7.25	7.50	7.25
October	7.30	7.35	7.30
RIBS—(Boxed 25c. more than loose)—			
September	7.87	7.92	7.87
October	7.92	7.97	7.92
PORK—(Per barrel)—			
September	12.87	13.00	12.87
October	13.00	13.05	13.00

MONDAY, JULY 17, 1905.

LARD—(Per 100 lbs.)—			
September	7.22	7.22	7.20
October	7.32	7.32	7.27
RIBS—(Boxed 25c. more than loose)—			
September	7.92	7.92	7.87
October	8.00	8.00	7.90
PORK—(Per barrel)—			
September	12.92	12.92	12.82
October	12.97	12.97	12.90

TUESDAY, JULY 18, 1905.

LARD—(Per 100 lbs.)—			
September	7.17	7.25	7.17
October	7.30	7.30	7.30
RIBS—(Boxed 25c. more than loose)—			
September	7.87	7.92	7.87
October	7.92	7.97	7.92
PORK—(Per barrel)—			
September	12.87	12.97	12.87
October	13.05	13.05	13.02

WEDNESDAY, JULY 19, 1905.

LARD—(Per 100 lbs.)—			
September	7.25	7.27	7.25
October	7.35	7.35	7.32
RIBS—(Boxed 25c. more than loose)—			
September	7.95	7.97	7.90
October	8.02	8.02	7.95
PORK—(Per barrel)—			
September	12.97	13.02	12.87
October	13.07	13.10	12.95

THURSDAY, JULY 20, 1905.

LARD—(Per 100 lbs.)—			
September	7.25	7.25	7.15
October	7.30	7.30	7.22
RIBS—(Boxed 25c. more than loose)—			
September	7.92	7.92	7.75
October	7.97	7.97	7.80
PORK—(Per barrel)—			
September	12.95	12.95	12.77
October	12.87	12.90	12.82

FRIDAY, JULY 21, 1905.

LARD—(Per 100 lbs.)—			
September	7.15	7.20	7.15
October	7.22	7.27	7.25
RIBS—(Boxed 25c. more than loose)—			
September	7.77	7.85	7.75
October	7.82	7.92	7.80
PORK—(Per barrel)—			
September	12.85	12.97	12.85
October	12.90	13.00	13.00

SEE THE LIST OF
BARGAINS
ON PAGE 48

CHICAGO LIVESTOCK

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, July 10.....	21,853	980	36,258	10,158
Tuesday, July 11.....	7,020	4,454	20,101	17,589
Wednesday, July 12.....	18,081	2,004	28,390	16,480
Thursday, July 13.....	9,403	1,977	18,538	17,052
Friday, July 14.....	3,201	530	11,649	7,785
Saturday, July 15.....	838	116	5,569	1,722
Total last week.....	60,826	10,070	120,503	76,816
Previous week.....	54,322	8,518	108,413	72,044
Cor. week 1904.....	44,291	5,392	85,837	56,820
Cor. week 1903.....	57,600	7,739	126,106	64,182

SHIPMENTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, July 10.....	5,307	36	11,557	920
Tuesday, July 11.....	3,068	45	5,962	1,364
Wednesday, July 12.....	3,911	39	10,115	244
Thursday, July 13.....	5,610	51	6,649	1,693
Friday, July 14.....	3,365	140	5,938	1,975
Saturday, July 15.....	709	1	2,569	285
Total last week.....	23,958	312	41,908	6,461
Previous week.....	20,006	187	39,751	6,628
Cor. week 1904.....	20,138	1,668	30,966	27,186
Cor. week 1903.....	18,218	1,492	18,493	6,119

Combined receipts of hogs at eleven markets for week ending July 15.....405,000
 Week ago.....335,000
 Year ago.....230,000
 Two years ago.....431,000
 Total receipts for year to date 13,200,000; against 12,340,000 year ago, 11,607,000 two years ago.

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City) as follows:

	Cattle.	Hogs.	Sheep.
Week ending July 15, 1905..	104,000	292,000	132,100
Week ago.....	124,000	294,500	137,900
Year ago.....	98,000	148,300	92,200
Two years ago.....	150,000	320,800	107,500
Chicago receipts for year to July 15:			
1905.....	1,085,795		1,657,112
1904.....	230,942		160,523
1903.....	4,416,556		4,258,507
1902.....	2,131,950		2,196,800

CHICAGO HOG SLAUGHTER.

Chicago packers slaughtered hogs during week ending July 15 as follows:

Armour & Co.....	18,600
Anglo-American.....	8,200
Continental.....	1,900
Swift & Co.....	14,400
Hammond & Co.....	5,400
Morris & Co.....	6,000
Boyd-Lunham & Co.....	5,400
S. & S.....	7,900
H. Boore & Co.....	2,100
Roberts & Oake.....	2,100
Other packers.....	13,000
Total.....	85,000
Left over.....	2,500
Week ago.....	70,700
Year ago.....	55,100
Two years ago.....	100,200

AVERAGE PRICE OF HOGS.

Week ending July 15, 1905.....	\$5.60
Previous week.....	5.53
Year ago.....	5.33
Two years ago.....	5.40
Three years ago.....	7.75

Estimated receipts of live stock week ending July 22:	
Cattle.....	60,000
Hogs.....	130,000
Sheep.....	70,000

AVERAGE PRICE OF GOOD BEEF CATTLE.

Week ending July 15.....	\$4.98
Previous week.....	5.25
Year ago.....	5.57
Two years ago.....	5.15

CATTLE.

Choice to prime steers.....	\$5.40@6.10
Common to good steers.....	4.15@5.00
Inferior to common steers.....	3.75@4.15
Good to choice hogs and hifers.....	3.00@5.00
Fair to choice feeders.....	4.00@4.25
Fair to choice stockers.....	3.00@4.10
Good cutting and fair beef cows.....	2.00@3.50
Common to good canning cows.....	1.40@2.00
Bulls, common to choice.....	2.25@4.00
Calves, common to good.....	3.00@5.25
Calves, good to fancy.....	5.25@6.75

HOGS.

Good to choice shipping.....	\$5.70@5.90
Good to choice butcher weights.....	5.70@5.90
Good to choice heavy mixed.....	5.60@5.75
Heavy packing.....	5.40@5.70
Light mixed.....	5.65@5.87½
Good to choice 185@250 lb. weights.....	5.75@5.85
Choice to prime heavy.....	5.70@5.90
Poor to choice pigs.....	5.50@5.75

SHEEP.

Export wethers.....	\$5.00@5.40
Fair to prime wethers.....	5.25@5.85
Bwies, good to prime.....	4.95@5.50
Yearlings, fair to fancy.....	5.85@6.75
Culls, ewes, poor to fair.....	3.00@4.00
Bucks and wags.....	2.50@3.00
Native lambs, medium to prime, shorn.....	5.25@6.75
Native lambs, culls and fair class, shorn.....	4.25@5.25
Western lambs, shorn.....	5.25@6.75
Spring lambs.....	5.00@7.75

CHICAGO RETAIL FRESH MEATS.

NOTE.—It is difficult to quote flat retail figures applicable to the whole of the city, every market having a practically different scale according to location, class and volume of trade, etc.

Beef.

Native Rib Roasts.....	15 @ 18
Native Sirloin Steaks.....	10 @ 18
Native Porterhouse Steaks.....	20 @ 20
Native Pot Roasts.....	8 @ 10
Rib Roasts from light cattle.....	12 @ 12½
Beef Stew.....	5 @ 8
Boneless Corned Briskets, Native.....	10 @ 10
Corned Rumps, Native.....	8 @ 10
Corned Ribs.....	6 @ 8
Corned Flanks.....	6 @ 8
Round Steaks.....	12 @ 12½
Round Roasts.....	12 @ 12½
Shoulder Steaks.....	10 @ 12
Shoulder Roasts.....	10 @ 12
Shoulder Neck End, Trimmed.....	7 @ 10
Rolls Roast.....	10 @ 12½

Lamb.

Hot-house Spring Lamb, hind quar.....	\$2.00
Hot-house Spring Lamb, fore quar.....	1.50
Spring Lamb (1905), hind quar., each.....	1.75
Spring Lamb (1905), fore quar., each.....	1.25
Hind Quarters.....	12½
Fore Quarters.....	12½
Legs.....	10
Stew.....	8
Shoulders.....	10
Chops, Rib and Loin.....	20

Mutton.

Legs.....	12½
Stew.....	8
Shoulders.....	10
Hind Quarters.....	12½
Fore Quarters.....	12½
Rib and Loin Chops.....	18

Pork.

Pork Loin.....	11½
Pork Chops.....	12
Pork Tenderloins.....	12
Pork Butts.....	9
Spare Ribs.....	6
Blades.....	5
Hocks.....	7
Pigs' Heads.....	8
Leaf Lard.....	8

Veal.

Hind Quarters.....	12½
Fore Quarters.....	8
Legs.....	10
Breasts.....	10½
Shoulders.....	10
Cutlets.....	20

Butchers' Offal.

Tailow.....	3 @ 3½
Mixed Bone and Tailow.....	1½ @ 2½
Calfskins, 8 to 15 lbs.....	15 @ 16
Calfskins, under 8 lbs. (deacon's).....	80 @ 85

SOUTH WATER STREET MARKETS.

Live Poultry.

Turkeys.....	14 @ 15
Fowls.....	12 @ 12
Roosters.....	7½ @ 8
Springs.....	14 @ 15
Ducks.....	11 @ 14
Geese.....	8 @ 8½

Dressed Iced Poultry.

Turkeys.....	@ 16
Chickens.....	12 @ 12½
Springs.....	13 @ 15
Ducks.....	10 @ 14
Geese, per dozen.....	@ 8
Capons.....	15 @ 20

Veal.

Choice.....	7½ @ 8½
Good.....	6½ @ 7
Medium.....	6 @ 6½
Coarse, heavy.....	5 @ 6
Coarse, small.....	3½ @ 4½

Butter.

Creamery, Prints.....	@ 21½
Creamery, Extras.....	@ 20½
Creamery, Firsts.....	@ 19
Creamery, Seconds.....	@ 17
Dairies, Choice.....	@ 18
Dairies, Firsts.....	@ 17
Dairies, Ladies.....	@ 16
Dairies, Packing Stock.....	@ 14
Renovated.....	@ 17½

Eggs.

Extras.....	@ 19
Prime Firsts.....	@ 17
Firsts.....	@ 15½
Fresh, at market, cases inc.....	12½ @ 13½

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.

Western Cows.....	5½ @ 6
Native Cows.....	6 @ 6½
Western Steers.....	6½ @ 6¾
Good Native Steers.....	7½ @ 8
Native Steers, Medium.....	7 @ 7½
Heifers, Good.....	6¾ @ 7½
Heifers, Medium.....	6½ @ 7
Hind Quarters.....	1½c. over Straight Beef
Fore Quarters.....	1c. under Straight Beef

Beef Cuts.

Steer Chunks.....	5 @ 5½
Cow Chunks.....	4 @ 4½
Boneless Chunks.....	4 @ 4½
Medium Plates.....	3 @ 3½
Steer Plates.....	3 @ 3½
Cow Rounds.....	7½ @ 8
Steer Rounds.....	8 @ 8½
Cow Loins, Common.....	8 @ 8½
Cow Loins, Medium.....	9 @ 9½
Cow Loins, Good.....	11 @ 11½
Steer Loins, Light.....	11½ @ 12
Steer Loins, Heavy.....	12 @ 12½
Beef Tenderloins, No. 1.....	15 @ 16
Beef Tenderloins, No. 2.....	14 @ 15
Strip Loins.....	7 @ 7½
Sirloin Butts.....	8 @ 8½
Shoulder Chops.....	6 @ 6½
Balls.....	9 @ 9½
Rump Butts.....	3½ @ 4
Trimnings.....	3½ @ 4
Shank.....	3½ @ 4
Cow Ribs, Heavy.....	5½ @ 6
Cow Ribs, Common Light.....	6 @ 6½
Steer Ribs, Light.....	9 @ 10
Steer Ribs, Heavy.....	10 @ 11
Loins Ends, steer-native.....	9½ @ 10
Loins Ends, cow.....	7 @ 7½
Hanging Tenderloins.....	6 @ 6½
Flank Steak.....	6 @ 6½

Beef Offal.

Livers.....	3 @ 3½
Hearts.....	2½ @ 3
Tongues.....	12 @ 12½
Sweetbreads.....	17 @ 18
Ox Tail, per lb.....	3½ @ 4
Fresh Tripe—plain.....	2½ @ 3
Fresh Tripe, H. C.....	4 @ 4½
Kidneys, each.....	3 @ 3½
Brains.....	3 @ 3½

Veal.

Heavy Carcass Veal.....	7 @ 7½
Light Carcass.....	6½ @ 7
Medium Carcass.....	7 @ 7½
Good Carcass.....	9 @ 10
Medium Saddles.....	11 @ 12
Good Saddles.....	12½ @ 13
Medium Racks.....	6 @ 6½
Good Racks.....	7½ @ 8

Veal Offal.

Brains, each.....	3 @ 3½
Sweetbreads.....	17 @ 18
Plucks.....	20 @ 21
Heads, each.....	10 @ 11

Lamb.

Medium Caul (Spring).....	11½ @ 12
Good Caul.....	12½ @ 13
Round Dressed Lamb.....	13 @ 14
Saddles Caul.....	14 @ 15
R. D. Lamb Saddles.....	15 @ 16
Caul Lamb Racks.....	9 @ 9½
R. D. Lamb Racks.....	10 @ 11
Lamb Fries, per pair.....	8 @ 8½
Lamb Tongues, each.....	3 @ 3½
Lamb Kidneys, each.....	3½ @ 4

Mutton.

Medium Sheep.....	8 @ 8½
Good Sheep.....	9 @ 9½
Medium Saddles.....	10 @ 11
Good Saddles.....	11 @ 12
Medium Racks.....	7 @ 7½
Good Racks.....	8 @ 8½
Mutton Legs.....	10 @ 11
Mutton Stew.....	4½ @ 5
Mutton Loins.....	10 @ 11
Sheep Tongues, each.....	3 @ 3½
Sheep Heads, each.....	5 @ 5½

Fresh Pork, Etc.

Dressed Hogs.....	7 @ 7½
Pork Loins.....	11½ @ 12
Leaf Lard.....	7 @ 7½
Tenderloins.....	11½ @ 12
Spare Ribs.....	5½ @ 6
Butts.....	9 @ 9½
Hocks.....	4 @ 4½
Trimnings.....	4 @ 4½
Tails.....	3½ @ 4
Snouts.....	3 @ 3½
Pigs' Feet.....	2½ @ 3
Pigs' Heads.....	3½ @ 4
Blade Bones.....	4 @ 4½
Cheek Meat.....	3 @ 3½
Hog Pinches.....	4 @ 4½
Neck Bones.....	2 @ 2½
Skinned Shoulders.....	7 @ 7½
Pork Hearts.....	2½ @ 3
Pork Kidneys.....	2½ @ 3
Pork Tongues.....	10 @ 11
Slip Bones.....	4 @ 4½
Tail Bones.....	3½ @ 4
Brains.....	3 @ 3½
Backfat.....	11 @ 12
Hams.....	7 @ 7½
Casas.....	7 @ 7½
Shoulders.....	7 @ 7½
Bellies.....	8½ @ 9

Compressed Ham

Large Compressed Ham.....

SAUSAGE.

Cloth Bologna.....	5½ @ 6
Bologna, large, long, round and cloth.....	5 @ 5½
Choice Bologna.....	6 @ 6½
Viennas.....	7 @ 7½
Frankfurters.....	6½ @ 7
Blood, Liver and Headcheese.....	5½ @ 6
Tongue.....	8 @ 8½
White Tongue.....	8 @ 8½
Minced Ham.....	8 @ 8½
Prepared Ham.....	8½ @ 9
New England Ham.....	10 @ 11
Berliner Ham.....	7½ @ 8
Boneless Ham.....	11 @ 12
Oxford Ham.....	11 @ 12
Polish Sausage.....	6 @ 6½
Leona, Garlic, Knoblauch.....	6 @ 6½
Smoked Pork.....	6 @ 6½
Veal Ham.....	10 @ 11
Farm Sausage.....	10 @ 11
Pork Sausage, bulk or link.....	7 @ 7½
Pork Sausage, short link.....	7½ @ 8
Special Prepared Ham.....	7½ @ 8
Boneless Pigs' Feet.....	8½ @ 9
Ham Bologna.....	7 @ 7½
Special Compressed Ham.....	7½ @ 8
Boston Roll.....	7 @ 7½
Cubana Sausage.....	8 @ 8½

Summer Sausages.

Supreme Summer, H. C., New Medium Dry.....	16 @ 17
German Salami, New Dry.....	14 @ 15
Holsteiner, New.....	11 @ 12
Mettwurst, New.....	9 @ 10
Farmer, New.....	12 @ 13
Darles, H. C., New.....	17 @ 18
Italian Salami, New.....	17 @ 18
Monarque Cervelat.....	13 @ 14

Sausage in Oil.

Smoked Pork, 1-50.....	3.75
Smoked Pork, 2-20.....	3.25
Bologna, 1-50.....	2.75
Bologna, 2-20.....	2.25
Viennas, 1-50.....	4.25
Viennas, 2-20.....	3.75

Sausage in Brine.

Fresh Pork Link.....	8 @ 8½
Liver Sausage.....	6½ @ 7
Blood Sausage.....	6½ @ 7
Head Cheese.....	6½ @ 7
Bologna.....	6½ @ 7
Vienna.....	8 @ 8½

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels.....	\$7.00
Pickled Plain Tripe, in 200-lb. barrels.....	4.50
Pickled H. C. Tripe, in 200-lb. barrels.....	7.75
Pickled Ox Lips, in 200-lb. barrels.....	11.00
Pickled Pigs' Snouts, in 200-lb. barrels.....	12.00
Lamb Tongue, Short Cut, barrels.....	30.00

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz to case.....	\$1.30
2 lbs., 1 or 2 doz. to case.....	2.35
4 lbs., 1 doz. to case.....	4.70
6 lbs., 1 doz. to case.....	8.00
14 lbs., ½ doz. to case.....	15.00

EXTRACT OF BEEF.

1 oz. jars, 1 dozen in box.....	\$2.25
2 oz. jars, 1 dozen in box.....	2.55
4 oz. jars, 1 dozen in box.....	4.50
8 oz. jars, ½ dozen in box.....	11.00
6 oz. jars, ½ dozen in box.....	22.00
2, 5 and 10 lb. tins.....	\$1.75 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef.....	Per bbl.
Plate Beef.....	9
Extra Mess Beef.....	9.50
Prime Mess Beef.....	10.00
Beef Hams.....	15.50 @ 19.50
Rump Butts.....	9 @ 9.00
Mess Pork.....	12.75 @ 12.75
Clear Fat Backs.....	13.75 @ 13.75
Family Back Pork.....	—
Bean Pork.....	11.00 @ 11.00

LARD.

Pure leaf, kettle rendered, per lb., tierces.....	8½ @ 8½
Lard, subattute, tierces.....	8 @ 8
Lard, compounds.....	5½ @ 5½
Barrels.....	¼c. over tea.
Half barrels.....	¼c. over tea.
Tubs, from 10 to 80 lbs.....	¼c. to 1c. over tea.
Cooking oil, per gal.....	35c.

BUTTERINE.

F. O. B. CHICAGO.

No. 1 natural color.....	11 @ 11
No. 2, natural color.....	12½ @ 12½
No. 3, natural color.....	13 @ 13
No. 4, natural color.....	14 @ 14
No. 5, natural color.....	15 @ 15
No. 6, natural color.....	16 @ 16

DRY SALT MEATS.

Clear Bellies, 14 @ 16 average.....	3½ @ 3½
Rib Bellies, 14 @ 16 average.....	3½ @ 3½
Fat Backs.....	6 @ 7
Regular Plates.....	6 @ 6
Short Cuts.....	7½ @ 7½

WHOLESALE SMOKED MEATS.

Hams, 12 lbs. average.....	11 @ 11
Hams, 12 lbs. average.....	10½ @ 10½
Skinned Hams.....	11½ @ 11½

Casas, 6 @ 7 lbs. average.....	7½ @ 7½
Casas, 8 @ 12 lbs. average.....	7 @ 7
Breakfast Bacon, fancy.....	15 @ 15
Wide, 8 @ 10 average, and Strip, 4 @ 5 ave.....	10½ @ 10½
Wide, 10 @ 12 average, and Strip, 5 @ 6 ave.....	10 @ 10
Wide, 12 @ 14 average, and Strip, 6 @ 7 ave.....	9½ @ 9½
Dried Beef Sets.....	13 @ 13
Dried Beef Insides.....	15½ @ 15½
Dried Beef Knuckles.....	14 @ 14
Dried Beef Outsides.....	12 @ 12
Regular Boiled Hams.....	15½ @ 15½
Smoked Boiled Hams.....	15½ @ 15½
Boiled Picnic Hams.....	15½ @ 15½
Cooked Loin Rolls.....	19 @ 19

SAUSAGE CASINGS.

F. O. B. CHICAGO.

Rounds, per set.....	12 @ 12
Middles, per set.....	40 @ 40
Beef bungs, per piece.....	5½ @ 5½
Hog casings, as packed.....	25 @ 25
Hog casings, free of salt.....	50 @ 50
Hog middles.....	12 @ 12
Hog bungs, export.....	12 @ 12
Hog bungs, medium, each.....	8 @ 8
Hog bungs, primes.....	4 @ 4
Hog bungs, narrow.....	2 @ 2
Imported sheep casings, wide.....	80 @ 80
Imported sheep casings, medium wide.....	70 @ 70
Imported sheep casings, medium.....	50 @ 50
Imported sheep casings, narrow.....	30 @ 30
Beef weasands, No. 1.....	5½ @ 5½
Beef bladders, medium.....	15 @ 15
Beef bladders, small, per doz.....	15 @ 15
Hog stomachs, each.....	4 @ 4

FERTILIZERS.

Dried blood, per unit.....	\$2.40 @ 2.40
Hoof meal, per unit.....	2.30 @ 2.30
Concent, tankage, 15% per unit.....	2.15 @ 2.15
Ground tankage, 12% per unit.....	2.17½ @ 2.17½
Ground tankage, 11% per unit.....	2.15 @ 2.15
Ground tankage, 10% per unit.....	2.07½ @ 2.07½
Ground tankage, 9 and 20%.....	2.00 @ 2.00
Ground tankage, 6 and 35% ton.....	16.00 @ 16.00
Ground raw bone, per ton.....	25.00 @ 25.00
Ground steam bone, per ton.....	18.00 @ 18.00
Unground tankage, per ton less than ground, 50c.....	—

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 @ 70 lbs. average.....	\$275.00 @ 275.00
Horns, black, per ton.....	25.00 @ 25.00
Horns, striped, per ton.....	30.00 @ 30.00
Horns, white, per ton.....	50.00 @ 50.00
Flat shin bones, 38 @ 40 lbs. average ton.....	45.00 @ 45.00
Round shin bones, 38 @ 40 lbs. average ton.....	45.00 @ 45.00
Round shin bones, 50 @ 52 lbs. average ton.....	55.00 @ 55.00
Long thigh bones, 90 @ 95 lbs. average ton.....	55.00 @ 55.00
Jaws, skulls and knuckles, per ton.....	25.00 @ 25.00

LARDS.

Prime steam cash.....	7.10 @ 7.10
Prime steam, loose.....	6½ @ 6½
Neutral.....	8 @ 8
Compound.....	5½ @ 5½
Leaf.....	6.75 @ 6.75

STEARINES.

Oleo oil, extra.....	9½ @ 10
Oleo, prime.....	7½ @ 7½
Oleo No. 2.....	7 @ 7
Mutton.....	7½ @ 7½
Tallow.....	5½ @ 5½
Grease.....	4½ @ 4½

OILS.

Lard oil, extra winter strained, tierces.....	55 @ 55
No. 1 lard oil.....	40 @ 40
Oleo oil, extra.....	9½ @ 10
Oleo oil, No. 2.....	8½ @ 9½
Oleo stock.....	8½ @ 8½
Neatsfoot oil, pure, tierces.....	55 @ 55
Tallow, prime, tierces.....	48 @ 48

TALLOW.

Edible.....	5½ @ 5½
Prime city.....	5½ @ 5½
Choice country.....	4½ @ 4½
Packers' prime.....	5 @ 5
Packers' No. 1.....	4½ @ 4½
Packers' No. 2.....	3½ @ 3½
Renderers' No. 1.....	4½ @ 4½

GREASES.

White, choice.....	4½ @ 4½
White, "A".....	4½ @ 4½
White "B".....	4 @ 4
Bone.....	3½ @ 3½
Horse.....	3½ @ 3½
Yellow.....	3½ @ 3½
Brown.....	3½ @ 3½
Glue stock.....	3½ @ 3½
Neatsfoot stock.....	3½ @ 3½

COTTONSEED OILS.

P. S. Y., loose.....	27½ @ 27½
P. S. Y., soap grade.....	20 @ 20
Soap bbls., concn., 63 @ 65% F. A.....	17½ @ 17½
Soap stock, bbls., reg 50% F. A.....	25 @ 25

COOPERAGE.

Tierces.....	\$1.17½ @ \$1.20
Barrels, oak.....	92 @ 92
Barrels, ash.....	82½ @ 82½

CURING MATERIALS.

Refined saltpetre.....	4½ @ 4½
Boric acid, crystal to powdered.....	10 @ 10
Botax.....	7½ @ 7½
Sugar.....	—
Pure open kettle.....	4½ @ 4½
White, clarified.....	4½ @ 4½
Plantation, granulated.....	4½ @ 4½
Yellow, clarified.....	4½ @ 4½
Ashtn, in bags, 224 lbs.....	52.50 @ 52.50
Eng. packing, in bags, 224 lbs.....	1.48 @ 1.48
Michigan, medium, car lots, per ton.....	5.35 @ 5.35

NEW YORK MARKET PRICES

LIVE CATTLE.

Good to choice native steers.....	\$5.10@5.80
Medium to fair native steers.....	4.40@5.00
Poor to ordinary native steers.....	3.85@4.35
Oxen and stags.....	3.00@4.50
Bulls and dry cows.....	1.75@4.25
Good to choice native steers last year.....	5.75@6.50

LIVE CALVES.

Live veal calves, prime, per 100 lbs.....	\$8.25@8.50
Live veal calves, fair to good, per 100 lbs.....	5.75@ 6.25
Live veal calves, com. to med., 100 lbs.....	4.00@ 5.25
Live veal calves, small, per 100 lbs.....	3.25@ 3.75
Live calves, buttermilks, per 100 lbs.....	3.00@ 3.25
Live calves, grassers, per 100 lbs.....	—@ —
Live calves, yearlings, per 100 lbs.....	—@ —
Live calves, western, per 100 lbs.....	—@ —

LIVE SHEEP AND LAMBS.

Live lambs, per 100 lbs.....	\$5.00@7.50
Live lambs, per 100 lbs.....	3.50@ 4.75
Live yearlings, lambs, per 100 lbs.....	—@ —
Live yearlings, culls, per 100 lbs.....	—@ —
Live sheep, per 100 lbs.....	3.00@ 5.00
Live sheep, culls, per 100 lbs.....	1.50@ 2.50

LIVE HOGS.

Hogs, heavy weights (per 100 lbs.).....	\$6.30@6.35
Hogs, medium.....	6.40@ 6.45
Hogs, light to medium.....	6.45@ 6.50
Pigs.....	@ 6.50
Broughs.....	5.30@ 5.45

DRESSED BEEF.

CITY DRESSED.

Choice native, heavy.....	@ 8%
Choice native, light.....	8 @ 8%
Common to fair, native.....	7 @ 7%

WESTERN DRESSED BEEF.

Choice, native, heavy.....	@ 8%
Choice native, light.....	8 @ 8%
Native, com. to fair.....	7 1/2 @ 7%
Choice Western, heavy.....	7 1/2 @ 8
Choice Western, light.....	7 @ 7 1/2
Common to fair Texas.....	6 @ 7
Good to choice helters.....	@ 7
Common to fair helters.....	6 @ 7
Choice cows.....	@ 6%
Common to fair cows.....	@ 5%
Good to choice oxen and stags.....	@ 7
Common to fair oxen and stags.....	@ 6%
Fleshy bologna bulls.....	@ 5%
Fresh pork loins, Western.....	11 @ 12

DRESSED CALVES.

Veals, city dressed, prime, per lb.....	11 @ 11 1/2
Veals, good to choice, per lb.....	10 @ 11
Calves, country dressed, prime, per lb.....	9 1/2 @ 10
Calves, country dressed, fair to good.....	@ 9
Calves, country dressed, common.....	8 1/2 @ 9

DRESSED HOGS.

Pigs.....	8 1/2 @ 8 1/2
Hogs, heavy.....	7 1/2 @ 7 1/2
Hogs, 180 lbs.....	7 1/2 @ 8
Hogs, 160 lbs.....	@ 8 1/2
Hogs, 140 lbs.....	8 1/2 @ 8 1/2

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.....	@ 12
Spring lambs, good.....	12 @ 12 1/2
Spring lambs, culls.....	10 @ 11
Sheep, choice.....	@ 10
Sheep, medium to good.....	@ 9 1/2
Sheep, culls.....	8 @ 9

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lbs. average.....	12 @ 12 1/2
Smoked hams, 12 to 14 lbs. average.....	11 1/2 @ 12
Smoked hams, heavy.....	11 1/2 @ 12
California hams, smoked, light.....	8 1/2 @ 8 1/2
California hams, smoked, heavy.....	7 1/2 @ 8
Smoked shoulders.....	8 1/2 @ 8 1/2
Smoked hams, boneless.....	12 @ 12 1/2
Smoked ham (rib in).....	11 1/2 @ 12
Dried beef sets.....	13 @ 13 1/2
Smoked beef tongue, per lb.....	17 1/2 @ 18 1/2
Pickled bellies, heavy.....	9 1/2 @ 9 1/2

BONES, HOOFES AND HORNS.

Round shin bones, av. 50@60 lbs. cut, per 100 bones, per 2,000 lbs.....	\$55.00@100.00
Flat shin bones, av. 40@45 lbs. cut, per 100 bones, per 2,000 lbs.....	42.00 @ 45.00
Hoofs, per ton.....	@ 30.00
Thigh bones, av. 80@95 lbs. cut, per 100 bones, per 2,000 lbs.....	75.00
Horns, 7 1/2 oz. and over, steers, first quality, per ton.....	300.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	80@90c. a piece
Fresh cow tongues.....	50@60c. a piece
Calves' head, scalded.....	30@40c. a piece
Sweetbreads, veal.....	25@75c. a pair
Sweetbreads, beef.....	18@25c. a pound
Calves' liver.....	25@50c. a piece
Beef kidneys.....	7@12c. a piece
Mutton kidneys.....	1 1/2 @ 3c. a piece
Livers, beef.....	4@ 5c. a pound
Oxtails.....	5@ 7c. a piece
Hearts, beef.....	6@10c. a piece
Rolls, beef.....	10@12c. a pound
Tenderloin beef, Western.....	15@25c. a pound
Lambs' fries.....	6@10c. a pair
Fresh pork, loins, city.....	10
Fresh pork, loins, Western.....	9 1/2

BUTCHERS' FAT.

Ordinary shop fat.....	2 1/2 @ 3
Suet, fresh and heavy.....	4 @ 5
Shop bones, per cwt.....	@ 25

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	80
Sheep, imp., wide, per keg, 50 bundles.....	\$40.00
Sheep, imp., medium, per bundle.....	60
Sheep, imp., per bundle, narrow.....	44
Sheep, imp., Russian Rings.....	—
Hog, American, free of salt, in tea. or bbls., per lb., f. o. b.....	50
Hog, American, kags, per lb., f. o. b.....	50
Beef, rounds, per set, f. o. b. Chicago.....	12
Beef, rounds, per set, f. o. b. New York.....	12
Beef, rounds, per lb.....	3
Beef, bungs, piece, f. o. b. New York.....	6 1/2
Beef, bungs, per lb.....	5
Beef, middles, per set, f. o. b. Chicago.....	40
Beef, middles, per set, f. o. b. New York.....	42
Beef, middles, per lb.....	6 1/2
Beef weasands, per 1,000, No. 1's.....	@ 5 1/2
Beef weasands, per 1,000, No. 2's.....	2 1/2 @ 3

SPICES.

	Whole.	Ground.
Pepper, Sing., white.....	18 1/2	20
Pepper, Sing., black.....	12 1/2	14 1/2
Pepper, Penang, white.....	17	18 1/2
Pepper, red, Zanzibar.....	15	18
Pepper, shot.....	14 1/2	—
Allspice.....	7	9 1/2
Coriander.....	10 1/2	12 1/2
Cloves.....	12 1/2	15 1/2
Mace.....	42	45

SALTPETRE.

Crude.....	@ 4 1/2
Refined—Granulated.....	4 1/2 @ 4 1/2
Crystals.....	4 1/2 @ 5 1/2
Powdered.....	5 @ 5 1/2

GREEN CALFSKINS.

No. 1 skins.....	\$0.19
No. 2 skins.....	.17
No. 1 B. M. skins.....	.17
No. 2 B. M. skins.....	.15
No. 1, 12 1/2-14.....	1.50
No. 2, 12 1/2-14.....	1.65
No. 1 B. M., 12 1/2-14.....	1.70
No. 2 B. M., 12 1/2-14.....	1.50
No. 1 kips, 14-18.....	2.15
No. 2 kips, 14-18.....	1.90
No. 1 B. M. kips.....	1.90
No. 2 B. M. kips.....	1.80
No. 1 heavy kips, 18 and over.....	2.50
No. 2 heavy kips, 18 and over.....	2.25
Branded skins.....	.11
Branded kips.....	1.40
Heavy branded kips.....	1.65
Ticky skins.....	.11
Ticky kips.....	1.50
Heavy ticky kips.....	1.70
No. 3 skins.....	.11

DRESSED POULTRY.

FRESH KILLED.

Turkeys—Western, average best.....	17 @
Western, mixed, fair to good.....	15 @ 16
Western, poor.....	13 @ 14
to pair, per lb.....	21 @ 22
Pennsylvania, broilers.....	17 @ 18
Western, broilers, dry picked.....	14 @ 16
Western, broilers, scalded.....	15 @ 15
Southern, broilers, scalded.....	13 @ 14
Fowls—Western, dry-picked, medium size.....	13 1/2 @ 13 1/2
Western, scalded, medium size.....	13 1/2 @ 13 1/2
Western, heavy weights.....	13 @ 13
Southern & Southw'n, medium size.....	13 @ 13
Western & Southwestern fowls and chickens, poor to fair.....	10 @ 12
Old cocks, per lb.....	9 @ 9 1/2
Spring Ducks—Long Island and Eastern.....	17 @ 17
Pennsylvania and Virginia, per lb.....	16 @ 17
Squabs—Prime, large, white, per dozen.....	2.50 @ 2.75
Mixed, per dozen.....	2.12 @ 2.25
Dark, per dozen.....	1.50 @ 1.65

LIVE POULTRY.

Chickens, Western, per lb.....	@ 15
Southern, per lb.....	@ 14
Fowls—per lb.....	@ 14 1/2
Roosters—old, per lb.....	@ 9 1/2
Turkeys—old, per lb.....	@ 14 1/2
Ducks—Western, average, per pair.....	70 @ 80
Southern, average per pair.....	60 @ 65
Geese—Western, average, per pair.....	1.00 @ 1.25
Southern, average, per pair.....	1.00 @ 1.25
Live Pigeons—Per pair.....	@ 20

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$22.00 @ 23.00
Bone meal, raw, per ton.....	25.00 @ 25.50
Nitrate of soda—future.....	2.30 @ 2.40
Nitrate of soda—spot.....	@ 2.40
Bone black, discard, per ton.....	13.00 @ 14.00
Bone black, discard sugar house, del. New York.....	15.00 @ 20.00
Dried blood, N. Y., 12@13 per cent. ammonia.....	2.55 @ 2.60
Dried blood, West, high grade fine.....	2.60 @ 2.65
Tankage, 9 and 20 p. c., f. o. b. Chicago.....	1.95 and 19
Tankage, 8 and 20 p. c., f. o. b. Chicago.....	18.00 @ 19.00
Tankage, 7 and 30 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Tankage, 6 and 35 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Garbage tankage, f. o. b. New York.....	8.00 @ 9.00
Fish scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate.....	2.50 and 19
Wet, acidulated, 6 p. c. ammonia, per ton.....	2.40 and 19
Asontine, per unit, del. New York.....	2.60 @ 2.65
Sulphate ammonia gas, for shipment, per 100 lbs.....	3.15 @ 3.20
Sulphate ammonia gas, per 100 lbs. spot.....	3.10 @ 3.25
Sulphate ammonia bone, per 100 lbs.....	2.30 @ 2.35
So. Carolina phosphate rock, ground, per 2,000 lbs., f. o. b. Charleston.....	6.50 @ 7.75
So. Carolina phosphate rock, undried, f. o. b. Ashley River, per 2,400 lbs.....	3.50 @ 3.75
The same, dried.....	3.75 @ 4.00

POTASHES, ACCORDING TO QUANTITY.

Kainit, shipment, per 2,240 lbs.....	\$8.95 @ 9.50
Kainit, ex-store, in bulk.....	9.80 @ 10.85
Kieserit, future shipment.....	7.00 @ 7.35
Muriate potash, 80 p. c., ex-store.....	1.95 @ 2.05
Muriate potash, 80 p. c., future shipment.....	1.90 @ 2.00
Double manure salt (46@48 p. c., less than 2 1/2 p. c. chloride), to arrive per lb. basis 48 p. c.....	1.16 1/2 @ 1.25 1/2
Sulphate potash, to arrive (basis 90 p. c.).....	2.18 1/2 @ 2.27 1/2
Sylvinit, 34 to 36 p. c., per unit. S. P.....	30 @ 30

JUTE CLOTH—for pressing tankage and blood.

FINE BURLAPS—for canvassing hams and bacon.

BURLAPS and BAGS—for any purpose.

W. J. JOHNSTON, Manufacturer and Importer

152 Jackson Boulevard, Chicago

LIVE STOCK REVIEWS

CHICAGO

(Special Letter to The National Provisioner from the Bowles Livestock Commission Co.)

Union Stock Yards, Chicago, July 19.

CATTLE.—Total supplies of cattle for the first three days of this week foot up about 45,000, compared with 47,500 a week ago. Monday's supply was heavy, over 26,000 head, and our market was 10@15c. lower, with extreme cases 20c. lower, with two bunches of prime Nebraska cattle weighing 1,534 lbs. and 1,483 lbs. at \$5.80 the top, with quite a goodly number of thick, fat cattle from \$5.25@5.60, exporters buying their grades generally from \$4.90@5.20. Corn and grass cattle principally from \$4.40@4.85. Corn fed Texas, 51 head, weighing 1,431 lbs., at \$5.00, which was top for Texas; 151 head, weighing 1,318 lbs., at \$4.85, with grass Texas principally from \$3.25@3.75. Tuesday's supply was 6,414, and our market was almost lifeless. Notable among the sales Tuesday were eight loads of Kansas wintered Texas grass cattle, five loads weighing 1,112 lbs. and 1,168 lbs. sold at \$3.80, and five loads weighing 1,158 lbs. sold at \$3.75. No Northern range cattle on sale. To-day's (Wednesday) receipts estimated at 12,000, and the market is steady at the decline, with an occasional handy bunch of the right kind showing very little strength. \$5.75 was the extreme top for two loads of 1,465 lbs. and 1,621 lbs. cattle, with a fair number of 1,100 lbs. and 1,550 lbs. cattle going from \$5.25@5.60 that were good and fat, with medium kinds going from \$4.85@5.20 and corn and grass cattle from \$4.25@4.85. To-day's fed Texas on sale sold from \$4.00@4.25, averaging 1,015@1,227 lbs.; 47 head grass Texas, weighing 918 lbs., at \$3.35; 43 head, weighing 925 lbs., at \$3.50; 127 head, weighing 982 lbs., at \$3.45; 120 head, weighing 983 lbs., at \$3.45. There were eight loads of Kansas grass Texas on market to-day which sold as follows: 41 head, weighing 1,127 lbs., at \$3.85; 47 head, weighing 1,168 lbs., at \$3.85; 41 head, weighing 1,116 lbs., at \$3.80; 39 head, weighing 1,102 lbs., at \$3.70. Butcher stock market suffered a heavy decline as steer market and very dull at decline.

HOGS.—Receipts of hogs for the first three days of this week about 59,000, as compared with 84,000 for the same period last week, showing a decrease of 25,000. Monday's official receipts were 29,971, which were less than the trade expected, and the market was fully 5c. higher, the demand being very good from all sources, shippers taking a fair share of the supply. Tuesday's receipts were very light and prices were again advanced 5@10c., tops selling at \$6.05, with the bulk of the sales at \$5.85@5.95. To-day's (Wednesday) receipts were again considerably below expectations, the run being estimated at only 18,000. Speculators and shippers opened the market at prices 5@10c. higher than Tuesday. The big packers, however, refused to follow the market and the result was that after the urgent shipping orders were filled the market weakened and at the close prices were little, if any, better than yesterday. The quality of the daily receipts shows a falling off, there being a scarcity of prime butchers and heavy hogs. The range in price between the best hogs and the ordinary packing kind is widening daily, and we look to see a further widening in prices. From the best information we can get the supply of matured hogs is not heavy. We quote to-day's early sales as follows, the close being about 5c. less than prices quoted here: Good to best medium and heavy weight shippers, \$6.00@

6.15; good to prime mixed grades, \$5.95@6.05; selected light hogs, \$6.00@6.15; heavy packing grades, \$5.75@5.90; mixed packers, \$5.90@6.00; pigs, \$5.50@6.00; rough throw-out packers, \$5.00@5.50.

SHEEP.—Receipts of sheep and lambs were pretty liberal Monday and Tuesday; the buyers had it all their own way and were not slow in taking advantage. Values on medium to good killing lambs are about \$1 per cwt. lower than last week, with the strictly prime lambs selling up to \$7.75, but very few as such. Packers have been getting supplies of very good weighty killing lambs from \$6.50@7.75 and fair killers around 6c., with culls at from \$4.50@5.00. Sheep show a sharp decline, with heavy weight natives mostly discriminated against, the best selling around \$4.25 on the late market, with choice handy weights at \$4.75. Breeding ewes, a very desirable kind, at \$4.50, and thin shorn lambs at \$4.75. Western sheep have declined sharply. Last week \$5.90 was paid for wethers, but nothing was now quotable over \$5.50, with choice at \$5.25, and ewes will figure about the same decline, with choice selling at \$4.75@4.90. Yearling wethers to-day at \$5.50@5.75. Feeding wethers, \$4.25@4.40. Good feeding lambs, \$5.50, and feeding yearlings of a fair kind to best grade, \$4.75@5.20. Increase supplies of Westerns expected at all markets and lower values are looked for. Breeding ewes of a very desirable class now at \$4.50. Fair little uncertain as to age and quality, \$3.75@4.50.

SOUTH OMAHA

(Special Letter to The National Provisioner.)

South Omaha, July 18, 1905.

There appears to be no let up in the run of corned cattle and supplies have been heavier than ever before at this season of the year. It is therefore not at all surprising that prices should suffer. Following last week's drop there has been a further decline on both beef steers and cow stuff of 15@25c. and it looks as if prices would go off still further unless there is a very material decrease in receipts soon. Western range cattle are beginning to come, but they will hardly come in competition with the corned cattle as they are mostly on the feeder order and on account of the late season it will probably be along in August before many of the westerns will be fat enough for beef. Good to choice 1,200 to 1,450-pound beefs are selling at \$5.85@5.40, with fair to pretty good 1,000 to 1,300-pound beefs at \$4.30@4.80 and the common to fair warmed up and only partly fattened steers around \$3.75@4.25. Hay fed western range beefs sold yesterday as high as \$4.50, but most of the range steers so far received have been selling around \$3.50@4.25. Cow stuff has suffered even more than fat cattle. This is always the case at this season of the year as the packers neglect the native grassers, preferring the westerns. Prices have declined fully a quarter this week and it takes good to choice fed stock to bring \$3.75@4.50. Fair to good butcher stock is selling at \$3.00@3.60 and canners and cutters at \$1.75@2.75. The trade in stockers and feeders has been dull and the volume of business small. Prospective buyers are all waiting for lower prices and insist that prices must come down or there will be few cattle fed this fall. Values are now right around half a dollar lower than they were two weeks ago and dealers predict there will be a further drop of 25@50c. before the season gets well under way. Good to choice feeding steers are quoted at \$3.50@4.00, with fair to good grades at \$3.00@3.50 and common to fair grades and odds and ends around \$2.50@3.00 and from that down.

Although receipts of hogs are keeping up well the market shows no signs of weakening and prices are all of a quarter higher than they were a week ago. A noteworthy feature of the market of late has been the active demand for shipping account. East-

ern markets are not getting the hogs expected, while the run at western points has been beyond the early estimates. At any rate the good general demand has kept prices advancing until values are higher than they have been before this season. Light and butcher weights still have the preference with all classes of buyers, and rough heavy loads sell down at bottom figures. The undertone to the trade is very strong and the range of prices comparatively narrow. To-day there were nearly 15,000 hogs here and the market held about steady. Tops brought \$5.60 and the bulk of the trading was around \$5.55@5.57 1/2, as against \$5.30@5.35 one week ago.

The sheep market seems to have broken about as fast as it advances and sheepmen are not so sanguine as they were. Wool and mutton will undoubtedly continue high for some time, but there is a limit to all things and millionaires will not be the only people who can afford mutton this summer. Prices are 50@75c. off from the high point ten days or two weeks ago, but they are still high enough to make the meat a luxury. Lambs are selling at \$6.50@7.25, with yearlings at \$5.50@6.00, wethers at \$4.75@5.25 and ewes at \$4.00@4.85.

ST. JOSEPH

(Special Letter to The National Provisioner.)

South St. Joseph, Mo., July 18.

The excessive receipts of cattle at the five leading points the past two days has resulted in one of the most serious breaks of the season. Supplies for the two days aggregate 93,000, with 13,700 more than were received for the corresponding days last week. Bulk of receipts for the two days totaled 9,000, which was fully as many as were received the whole of last week. The trade to-day on best native steers was fairly active, with prices 20 to 30c. lower than the close of last week, while common to fair light medium short fed grassy offerings are 30 to 40c. lower. Common to fair quarantine steers a decline of 40 to 60c. as compared with the close of last week, and the good kinds are off 30 to 40c. Strictly choice dry lot cows and heifers show a decline of 10 to 20c. for the two days, and best native grassers are 15 to 20c. lower. Range and quarantine cows and heifers are 20 to 35c. lower, and common to fair qualities are 40 to 50c. lower and in some cases more. All kinds of bulls are dull and 15 to 25c. lower than last week. Veal calves have been in quite large supply and the demand has been sufficient to cause prices to rule strong to 25c. higher than the close of last week. The supply of stock and feeding cattle has been the largest in some time. While the bulk of offerings Monday sold steady, the market closed 10 to 15c. lower and to-day trading was quite active on this basis.

The hog receipts are below normal for this season of the year and as a result of the limited supplies, prices have been working upward quite rapidly. The market to-day showed a little strength, with prices ranging from \$5.60 to \$5.75, and the bulk selling at \$5.62 to \$5.72. Packers continue to claim that hogs are cutting out at a loss, but regardless of this fact they seem very eager for all offerings even at the higher range of values. Local receipts are quite liberal and still insufficient for the wants of the packers.

Receipts of sheep and lambs continue to be under the requirements of the trade, the sharp decline in lambs in Chicago caused the market here to drop 25c. on this commodity, but to-day with moderate receipts the market was again fully steady. Sheep show very little change from the close of last week, and the demand is very strong for all offerings.

KANSAS CITY

(Special Wire to The National Provisioner.)

Stock Yards, Kansas City, July 21.

CATTLE.—Receipts this week were 43,700; last week, 49,300; same week last year, 30,900. The declining close last week did not check the receipts this week, and with the heavy runs came a wide range in qual-

THE GEO. F. TAYLOR CO.
Fuller's Earth and Bone Black
 For Filtering Purposes
 ALSO ALL FERTILIZER CHEMICALS
 AND MATERIALS.
 No. 80 Pine St., New York

ity. The market declined daily the first three days and closed 10@10½c. lower. Bulk of supply was in the quarantine division, composed mostly of grass cattle, which are a ¼c. lower than the close last week. Top this week, \$5.35 against \$5.65 last week. Bulk selling at \$4.90@5.25. Fed cows scarce at \$2.70@4.00. Grassers, \$2.00@3.50. Grass steers, \$3.25@4.00. Veals scarce, not enough coming; prices 25@40c. higher, at \$5.50@5.75. Stockers and feeders dull at \$3.25@4.40.

HOGS.—Receipts this week were 31,500; last week, 30,300; same week last year, 40,400. Following the good close of last week the market continued to advance rapidly and high point was reached Wednesday, with top of \$5.87½. Market took a downward course after Wednesday and shows a decline of 10@20c. Top to-day \$5.72. Bulk of sales, \$5.60@5.65; quality is good and is about the usual summer average for this season of the year. Light weight butcher grades bring the tops and are in best demand.

SHEEP.—Receipts this week were 15,700; last week, 19,900; same week last year, 5,200. The sheep market, which has been on an upward turn for the past month or so, took a drop Thursday and prices are 25@40c. lower. Native lambs are about ¼c. lower, while Westerners show a still further decline. Lambs now sell at \$5.75@7.15. Wethers, \$5.00@5.80. Ewes, \$4.25@4.75. No stock or feeding sheep are being received. Prices range from \$2.50@4.00. Increased marketing is expected from the Northwest.

HIDES steady. Green salted, around 11c.; side brands, 10c.; bulls, 8½c.; glue, 6c.; dry flint butcher, 17c.; dry glue, 9c.; sheep pelts, 14@15c.

Packers' purchases for the week were:

	Cattle.	Hogs.	Sheep.
Armour	5,199	9,604	1,018
Cudahy	5,955	6,307	1,604
Fowler	1,818	—	778
Morris	5,938	4,779	2,278
Ruddy	487	—	—
Schwartzschild	4,799	5,155	3,680
Swift	7,275	6,577	4,187

NEW YORK LIVESTOCK

WEEKLY RECEIPTS TO JULY 17, 1905.

	Bevers.	Cows.	Calves.	Sheep.	Hogs.
Jersey City	1,544	—	1,797	40,107	10,341
Sixtieth street	473	62	6,943	407	—
Fortieth street	—	—	—	—	15,811
Lehigh Valley	6,540	—	—	—	—
Weehawken	1,175	—	—	—	—
Scattering	—	65	71	36	3,150

Totals	9,736	127	8,811	40,530	29,302
Totals last week	8,537	91	9,382	38,033	27,652

WEEKLY EXPORTS.

	Live cattle.	Live Qrs. of sheep.	Qrs. of beef.
Schwartzschild & Sulzberger, Sa. George	425	—	—
Schwartzschild & Sulzberger, Sa. Minnehaha	375	—	1,980
Schwartzschild & Sulzberger, Sa. St. Louis	—	—	1,300
Schwartzschild & Sulzberger, Sa. British Princess	375	—	—
J. Shamburg & Son, Sa. George	425	—	—
J. Shamburg & Son, Sa. Minnetonka	375	—	—
J. Shamburg & Son, Sa. British Princess	375	—	—
Morris Beef Co., Sa. George	—	—	2,400
Morris Beef Co., Sa. Majestic	—	—	1,200
Armour & Co., Sa. St. Louis	—	—	2,800
Swift & Co., Sa. Majestic	—	—	1,000
Swift & Co., Sa. Minnehaha	—	—	1,820
Cudahy Packing Co., Sa. Leocadia	—	—	950

Total exports	2,350	—	13,550
Total exports last week	1,874	50	13,710
Boston exports this week	1,848	—	2,659
Baltimore exports this week	858	—	—
Philadelphia exports this week	200	—	955
Newport News exports this week	979	—	—
Montreal exports this week	3,435	198	7,400
To Liverpool	3,829	—	9,755
To Glasgow	1,955	—	—
To Bristol	520	—	—
To Antwerp	60	—	—
Total to all ports	9,070	198	17,155
Total to all ports last week	11,221	310	21,170

LIVE CATTLE.

Good to choice native steers	\$5.00@5.70
Medium to fair native steers	4.20@4.90
Poor to ordinary native steers	3.75@4.25
Oxen and stags	3.00@4.50
Bulls and dry cows	1.75@4.15
Good to choice native steers one year ago	5.00@6.00

SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centres for the week ending July 15:

CATTLE.

Chicago	36,808
Omaha	15,572
St. Joseph	9,805
Cudahy	9,805
Sioux City	2,292
Wichita	75
South St. Paul	2,143
Louisville	106
New York and Jersey City	7,513
Fort Worth	11,362
Detroit	1,095
Buffalo	6,000

HOGS.

Chicago	78,600
Omaha	40,475
St. Joseph	30,819
Cudahy	15,566
Sioux City	20,329
Ottumwa	12,160
Cedar Rapids	8,110
Wichita	3,236
South St. Paul	15,182
Indianapolis	32,292
Louisville	3,018
New York and Jersey City	29,302
Fort Worth	2,805
Detroit	2,910
Buffalo	26,010

SHEEP.

Chicago	70,455
Omaha	12,489
St. Joseph	5,437
Cudahy	370
Sioux City	261
South St. Paul	1,979
Louisville	75
New York and Jersey City	40,550
Fort Worth	625
Detroit	1,357
Buffalo	8,275

GENERAL MARKETS

LARD IN NEW YORK.

Western steam, \$7.05@7.25; city steam, \$6.75; refined, Continent, tes., \$7.35, do. South America, tes., \$8; do. do. kegs, \$9; compound, \$5.25@5.37½.

HOG MARKETS, JULY 21.

CHICAGO.—Receipts, 20,000; 5@10c. lower; \$5.20@6.00.

INDIANAPOLIS.—Receipts, 7,000; lower; \$5.75@6.00.

KANSAS CITY.—Receipts, 7,000; 5@10c. lower; \$5.55@5.70.

OMAHA.—Receipts, 11,000; slow; \$5.45@5.60.

FAST BUFFALO.—Receipts, 1,700; firm; \$6.35.

LIVERPOOL.

(By Cable to The National Provisioner.)

Liverpool, July 21.—Beef, extra, India mess, tierces, 82s. 6d.; pork, prime mess, Western, 65s.; shoulders, 31s. 6d.; hams, short clear, 46s.; bacon, Cumberland cut, 44s. 6d.; do., short rib, 45s. 6d.; do., long clear, 28@34 lbs., 45s. 6d.; do., 35@40 lbs., 45s.; backs, 42s. 6d.; bellies, 43s. 6d. Tallow, 22s. 6d. Turpentine, 44s. 3d. Rosin, common, 9s. 3½d. Lard, spot, prime Western, tes., 35s. 3d.; do. American refined, 29-lb. pails, 35s. 3d. Cheese, white new, 48s.; do. colored, 49s. 6d. American steam lard (Hamburg), 56 kilos, 35¼ marks. Tallow, Australian (London), 25s. 9d. Cottonseed oil, refined (Hull), 18s. Refined petroleum (London), spot, 5 11-16d.; linseed (London), 39s. 9d.; linseed oil (London) 19s. 4½d.

FRIDAY'S CLOSINGS.

Provisions.

The hog markets were all 5@10c. lower on increased supplies of the hogs, but the products market ruled somewhat better after the decline of the day before.

Cottonseed Oil.

The market does not offer new features from those outlined in our weekly review in another column. Thursday's "call" prices were firmer. Sales, 300 bbls. July, 28¾c.; 100 August, 29c.; 300 September, 30c.; 100 do., 29¾c.; 100 October, 30½c.; July, 28¾c. @ 29c.; August, 29@29½c.; September, 29¾c. @ 30c.; October, 30¼@30½c. Friday's market firm and quiet. Sales, 100 bbls. August, 29c. "Call" prices: July, 28½@29c.; August, 29@29½c.; September, 29¾@30c.; October, 30¼@30½c. Fully 7,000 barrels sold and switched from September to October.

Tallow.

The market remains quiet and essentially as in our review in another column. Sales of 200 hogheads city at 4¾c. Weekly contracts made on basis of 4¾c.

BALTIMORE FERTILIZER MARKET.

(Special Letter to The National Provisioner from Thomas H. White & Co.)

The market for ammoniates the past week has been quiet. Buyers are showing little interest in material for nearby shipment, and on futures producers' prices are such as to prevent business at present.

We quote: Ground tankage, 6½ and 25, \$16 per ton f. o. b. Chicago; ground tankage, 11 and 25, \$2.12½ and 10 per unit f. o. b. Chicago; unground tankage, 9 and 20, \$2.05 and 10 per unit f. o. b. Chicago; ground concentrated tankage, \$2.15 futures per unit f. o. b. Chicago; ground blood, \$2.35 prompt per unit f. o. b. Chicago; ground blood, \$2.40 futures per unit f. o. b. Chicago; hoof meal, \$2.30 nominal per unit f. o. b. Chicago; crushed tankage, 9 and 20 (futures) \$2.55 and 10, \$2.60 and 10 c. a. f. basis Baltimore.

Nitrate of Soda.—July, \$2.25 per 100 lbs.; early August, \$2.22½ per 100 lbs.; late August, \$2.20 per 100 lbs.; September to December, \$2.17½ per 100 lbs.

OLEO AND NEUTRAL LARD.

The oleo market during the week under review has been very strong and prices firmly held on account of the good demand and small stocks both here and abroad. There is no change to report in the situation in the cottonseed oil market. Prices are still above exporters' views.

RECEIPTS AT CENTERS

SATURDAY, JULY 15.

	Cattle.	Hogs.	Sheep.
Chicago	500	6,000	2,000
Kansas City	300	2,000	—
Omaha	100	8,000	—

MONDAY, JULY 17.

Chicago	20,000	30,000	20,000
Kansas City	16,000	6,000	5,000
Omaha	5,000	7,000	6,200

TUESDAY, JULY 18.

Chicago	7,000	13,000	15,000
Kansas City	8,000	11,000	4,000
Omaha	5,000	15,000	6,000

WEDNESDAY, JULY 19.

Chicago	16,500	13,000	15,000
Kansas City	10,000	8,000	4,000
Omaha	2,700	15,000	2,700

THURSDAY, JULY 20.

Chicago	7,000	16,000	12,000
Kansas City	6,000	7,000	5,000
Omaha	5,000	12,000	6,000

FRIDAY, JULY 21.

Chicago	3,000	20,000	6,000
Kansas City	2,000	7,000	2,000
Omaha	1,450	11,000	4,000

Lombard Iron Works & Supply Company AUGUSTA, GA.

Builders and Dealers in ENGINES, BOILERS, Tanks, Stacks, Standpipes, etc.; Bridge and Architectural Iron Work; Railroad, Cotton, Saw, Fertilizer, Oil and Ice MACHINERY and Supplies and Repairs; Shafting, Pulleys, Hangers, Leather and Rubber Belting and Hose; MILL SUPPLIES and TOOLS; Foundry, Machine, Boiler and Bridge Work. Capacity for 800 hands.

RETAIL SECTION

NEW YORK GARNISHEE LAW.

For the information of butchers in the State of New York, the following copy of the State garnishee law, giving creditors a lien upon incomes over \$12 per week, is published:

Chapter 175. An act to amend the code of civil procedure, in relation to exemptions and executions.

Became a law April 11, 1905, with the approval of the Governor. Passed, three-fifths being present.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section 1391 of the code of civil procedure is hereby amended to read as follows:

Sec. 1391. In addition to the exemptions, allowed by the last section, necessary household furniture, working tools and team, professional instruments, furniture and library, not exceeding in value two hundred and fifty dollars, together with the necessary food for the team for ninety days, are exempt from levy and sale by virtue of an execution, when owned by a person, being a householder, or having a family for which he provides, except where the execution is issued upon a judgment, recovered wholly upon one or more demands, either for work performed in the family as a domestic or for the purchase money, of one or more articles, exempt as prescribed in this or the last section. Where a judgment has been recovered wholly for necessities sold, or work performed in a family as a domestic, or for services rendered for salary owing to an employee of the judgment debtor, and where an execution issued upon said judgment has been returned wholly or partly unsatisfied, and where any wages, debts, earnings, salary, income from trust funds or profits are due and owing to the judgment debtor or shall thereafter become due and owing to him, to an amount exceeding twelve dollars per week, and where no execution issued as hereafter provided for in this section is unsatisfied and outstanding against said judgment debtor, the judgment creditor may apply to the court in which said judgment was recovered or the court having jurisdiction of the same without notice to the judgment debtor and upon satisfactory proof of such facts by affidavits or otherwise, the court, if a court not of record, a judge or justice thereof, must issue or if a court of record, a judge or justice, must grant an order directing that an execution issue against the wages, debt, earnings, salary, income from trust funds or profits of said judgment debtor, and no presentation of such execution by the officer to whom delivered for collection to the person or persons from whom such wages, debts, earnings, salary, income from trust funds or profits are due and owing, or may thereafter become due and owing to the judgment debtor, said execution shall become a lien and a continuing levy upon the wages, earnings, debts, salary, income from trust funds or profits due or to become due to said judgment debtor to the amount specified therein which shall not exceed ten per centum thereof, and said levy shall be a continuing levy until said execution and the expenses thereof are fully satisfied and paid or until modified as hereinafter provided. It shall be the duty of any person or corporation, municipal or otherwise, to whom said execution shall be pre-

sented, and who shall at such time be indebted to the judgment debtor named in such execution, or who shall become indebted to such judgment debtor in the future, and while said execution shall remain a lien upon said indebtedness to pay over to the officer presenting the same, such amount of such indebtedness as such execution shall prescribe until said execution shall be wholly satisfied and such payment shall be a bar to any action therefor by any such judgment debtor. If such person or corporation, municipal or otherwise, to whom said execution shall be presented shall fail, or refuse to pay over to said officer presenting said execution, the percentage of said indebtedness, he shall be liable to an action therefor by the judgment creditor named in such execution, and the amount so recovered by such judgment creditor shall be applied toward the payment of said execution. Either party may apply at any time to the court from which such execution shall issue, or to any judge or justice issuing the same, or to the county judge of the county, and in any county where there is no county judge, or any justice of the city court upon such notice to the other party as such court, judge, or justice shall direct for a modification of said execution, and upon such hearing the said court, judge or justice may make such modification of said execution as shall be deemed just, and such execution as so modified shall continue in full force and effect until fully paid and satisfied, or until further modified as herein provided.

Sec. 2. This act shall take effect immediately.

State of New York—Office of the Secretary of State, ss.:

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

John F. O'Brien, Secretary of State.

CHARGES DISCRIMINATION.

D. W. Miner, a dealer in beef and pork products at Providence, R. I., in a complaint before the Interstate Commerce Commission against the New York, New Haven and Hartford Railroad Company, avers that the railroad declines to deliver his merchandise at the Canal street yard, where his place of business is situated, although delivery is made direct to his competitors at the same yard. He says that this discrimination is intentionally made to favor his competitors, and should be abolished.

ENGLISH POULTRY DANGEROUS.

"Thirty per cent of the poultry reared in England and subsequently served at the table has suffered from some form or another of tuberculosis," is the startling statement made by a poultry expert.

It is not a new suggestion by any means, and it has been dwelt upon before at meetings of the medical faculty, but it is only now that the commission is about to take the matter into serious consideration.

The authority quoted above offers the comforting information to English lovers of poultry that such diseases as roup, wet poup,

swelled head, dropsy of the wattles, gapes, liver disease and pip, all of which are the bane of the poultry farmer, are merely different forms of tuberculosis.

"There are districts in England," says an official of the National Poultry Organization society, "where it is impossible to carry on poultry farming owing to the presence of germs of tuberculosis in the soil."

"Frequently are seen in the best poultry stores and in restaurant windows the skinny birds which to the expert eye obviously have had tuberculosis."

"Personally I consider there is great danger to public health in the thousands of yards where poultry is raised under the most filthy conditions. Most of these are birds which find their way to the London market."

WHALE MEAT.

Newfoundland is about to send to the English market an experimental shipment of whale flesh, which is said to taste like venison. The price will be about 5 cents per lb. It also smells like venison, but some people prefer gamey flavored food.

THE MAN WITH AN AD.

There's the man with the pick and the man with the hoe,
And the man with the horny spade;
But the man with the "ad" is the man ever glad,
For he collars his share of the trade.

There's the man with the hat and the man with the shoe,
And the man with the automobile;
But whoe'er, east or west, in an "ad" will invest,
Is the man at the top of the deal.

There's the man with the frown and the man with the sigh,
And the man with perpetual grief;
But just make up your mind that no man of that kind,
In an "ad" has the slightest belief.

For the man of the East, and the man of the West,
With a smile and a face all aglow,
Is the man who has had, by the aid of an "ad"

A trade that has brought in the dough.

—Harness Herald.

BRIEF AND TO THE POINT.

CHAPTER I.

I work.

CHAPTER II.

I'm tired.

CHAPTER III.

I shirk.

CHAPTER IV.

I'm fired.

—Shoe Retailer.

LOCAL AND PERSONAL.

L. Sawyer has opened a market at York, Neb.

C. C. Croshaw has engaged in business at Oxford, Ida.

Harms & Pulse have opened a market in Arapahoe, Neb.

Frank Cotter has opened a market in Youngstown, O.

Lorin & McConnell have engaged in business at Scholls, Ore.

William Brown, of Gridley, Cal., suffered a \$3,000 fire loss recently.

F. D. Ellis has bought the shop of Chance & Davis, at Junction, Kan.

J. Bond has succeeded Bond & Brown in the business at Geary, Okla.

Simon & Taylor have purchased the market of C. R. Bass in Anselmo, Neb.

Joseph Girard has sold his market in Meyers Falls, Wash., to G. P. Grandall.

W. J. Duve has purchased the business of J. H. Armstrong, at Springfield, Neb.

Kirk & Gilmore have purchased the shop of P. Burns & Co., at Oroville, Wash.

Rude & Pigg have purchased the market of Terry & Smith in Mangum, Okla.

Kerns & Ayers, of Lookout, Ida., have sold their market to McGraw & Holliday.

I. A. & C. Wiley have purchased the market of J. S. Davis, at Eureka, Kan.

Verley & Wanser have purchased the business of G. D. Myer, at David City, Neb.

Hanna & Kauffman's market, at Corry, Pa., was burned recently. Loss heavy.

The Machurek Meat Market, in David City, Neb., has been purchased by W. C. Curry.

Tripp & Dragstedt have incorporated their grocery and meat business, at Butte, Mont.

Rive's Market, at Crystal Springs, La., was destroyed by fire recently. Loss \$1,500.

J. E. Boller, of Concord, Neb., has succeeded to the meat business of J. J. Winant.

Hill & Mallery have sold their butcher business in Glendale, Ore., to C. W. Marvin.

S. D. Sigourney, of Butte, Mont., has succeeded to the business of the Keystone Market.

Sam Crow has purchased the meat business of Troutman & Williams, at Darlington, Kan.

Kirchan & Fisher have succeeded Buchanan & Pershall in the meat business at Davenport, Wash.

M. Isaacson has purchased the meat and grocery business of S. Adelson, at South Omaha, Neb.

Killion & Harris have been succeeded in the meat business at Wichita, Kan., by McKee & Black.

The market of Edwin Rich, at Ft. Wayne, Ind., has been sold to the Hoosier Co-operative Company.

Brehm & Sons have been succeeded in the meat business in Western Nebraska by Brehm & Hinz.

Martin Montz, of Harrisburg, Neb., has sold his market to Roy Howard and Earl Troy, of Gering.

The Central Meat Market, of Astoria, Ore., was last week destroyed by fire. Loss was covered by insurance.

Small packers get big profits from by-products. We can tell you how. Stillwell-Provisioner Laboratory, 36 Gold street, New York.

SAUSAGE PRESERVATIVES

Preservatives for sausage making may be divided into three general classes: Cold storage or refrigeration, salt, and chemicals. The first and best preservative is cold storage. This is applicable for keeping almost indefinitely food products when the proper and necessary conditions are observed. Among these conditions is a dry cold atmosphere and the absence of any notable amount of moisture or dampness. When humidity is present in a marked degree the conditions are ripe for the formation of mould, which under these favorable conditions rapidly grows upon all animal and vegetable matter, rendering such articles more or less unsightly. Excessive moisture should be removed from the air as much as possible by placing in convenient corners of the cold storage rooms receptacles filled with ordinary quicklime. This, after having absorbed all the moisture it will, can be cheaply and quickly replaced with fresh quantities of lime.

A better, but perhaps a little more expensive agent for this purpose, is fused chloride of calcium, a material extensively used in the cold storage of fruit as a necessary protection against the accumulation of moisture. Chloride of calcium absorbs moisture from the surrounding air with great rapidity, keeps the atmosphere in the room perfectly dry and lasts a long time.

With many butchers and small meat dealers natural ice is largely replaced for refrigerating purposes by small, compact and efficient ice-making machines. These are so much more economical in regard to the space occupied and to the expense of producing the required amount of refrigeration that it seems only a question of time when they will entirely supersede natural ice for this purpose. These facts may be appreciated most thoroughly by those depending upon outside sources for their supply of ice.

A small ice-making machine is a leading feature in the modern, well-equipped sausage factory. Where any considerable quantities of sausages and meats are handled, the small ice machine is not only a convenience, but a necessity. The advantage it offers over the old-fashioned way of storing ice is alone sufficient to commend its use. When its work is accomplished by producing the required temperature, the machine is stopped, and the expense of running it then ceases. It is a much more cleanly method of obtaining refrigeration, and, as before mentioned, is much more simple and economical. Before planning the erection or extensive repairs of ice-houses or boxes, the merits of these machines should be investigated, when the fact of their superior merit will undoubtedly be made apparent. These ice-making machines are constructed with capacities varying from half a ton to 400 tons daily. Essential as is mechanical refrigeration to the large packer, it is no less so to the smaller packer and the butcher who wish to successfully compete with others in this era of close working and small profit.

The temperature of the place chosen for cold storage is a most important consideration. It should be as carefully regulated as possible and no wide variations allowed from the degree of cold necessary for the proper preservation of the substances placed therein.

Salt.

Salt has been for ages and is to-day universally employed as a preservative. It is used in the meat industry for the seasoning, curing and packing of all kinds of meats, preventing decomposition by absorbing moisture from the flesh and tissues, and at the same time imparting a flavor which is not possible with any other agent. Not only is it invaluable as an antiseptic, but it has the advantage of being also a tonic, a certain amount being necessary for health. Used in its natural state or in solution, as in brine or pickle, it is an ideal preservative. Without the use of salt, there could not exist the vast packing industry which we have to-day. Its use in the dry-salt department, with the enormous range of the products dependent upon its curative properties, is sufficient evidence of its value as a dry agency and in its solution as a pickle. The absolute dependence upon salt alone, to preserve for future consumption, such unlimited quantities of perishable goods attests its unequalled importance as an antiseptic and a preservative.

Many kinds and varieties of salt are used. There is no difference in their composition, but they are characterized by the size and the different forms of the grains or crystals and the source of their origin.

With this ingredient, as with the other materials used in the manufacture of sausages, selection of the proper kinds should be made. Ordinary salt generally contains insoluble matter, such as dirt and sand and usually, more or less of lime and magnesia salts in the form of sulphates and chlorides. Some of these impurities impart a bitter taste to the meats and other materials in connection with which such salt is used.

All salt selected should be as free from impurities as possible, with a view to its general qualifications and its fitness for the use to which it may be placed.

Chemicals.

The use of antiseptics for the preservation of meats and sausages has come to be recognized as legitimate and even necessary.

Among those commonly used are borax, boracic acid and other preservatives more or less effective. These preservatives have their legitimate functions, as unquestionably much good and valuable food would be lost and wasted, especially in the hot summer months, if there were no easy and convenient means for preserving it against decomposition.

The trouble lies in the fact that when there is a legitimate use in moderate quantities of such articles, abuses creep in which arouse antagonism and agitate the question of their entire prohibition; but those who use preservatives intelligently and in moderate quantities will always have beneficial results and need not fear any harmful effects therefrom. A good maxim to remember is: don't use 2 ounces when 1 ounce will do the work.

Saltpetre, or, chemically speaking, potassium nitrate, is of great value because it imparts the peculiar and desired natural ruddy color to meats, whether cured in dry salt or pickle. Without its assistance it would be almost impossible to prepare meats to suit many markets. To obtain this desired natural color it is necessary to use only 4 ounces of saltpetre to 100 pounds of meat. If too much saltpetre is used it will have a tendency to cause the meat to have a shriveled appearance.

(To be continued.)

LARD PAILS**NO LEAKS**

Original sketches of lithographed labels furnished without charge.

S. OPPENHEIMER & CO.,

447-449 Wabash Ave., Chicago, Ill. 96-100 Pearl St., New York, N. Y.

Telephone No. 1251 Broad

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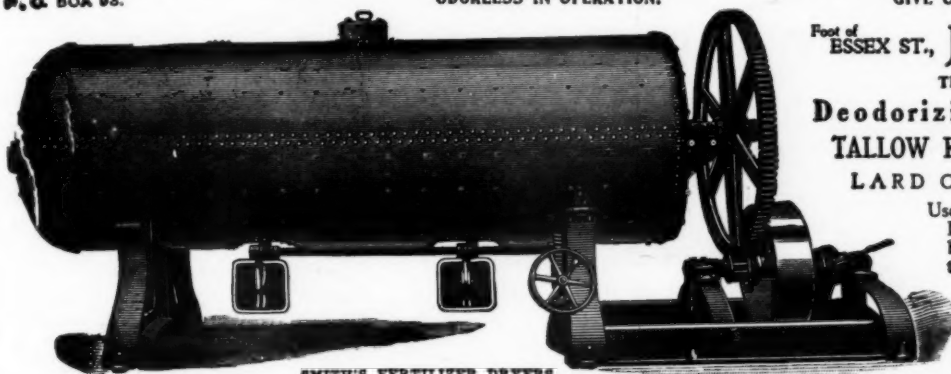
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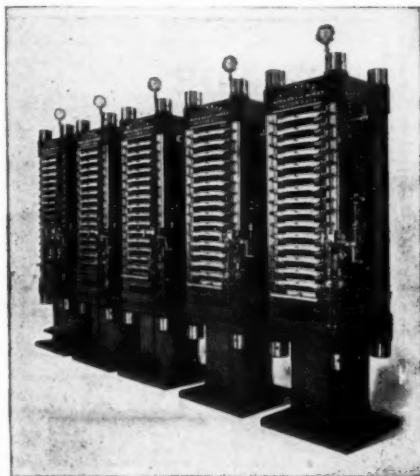
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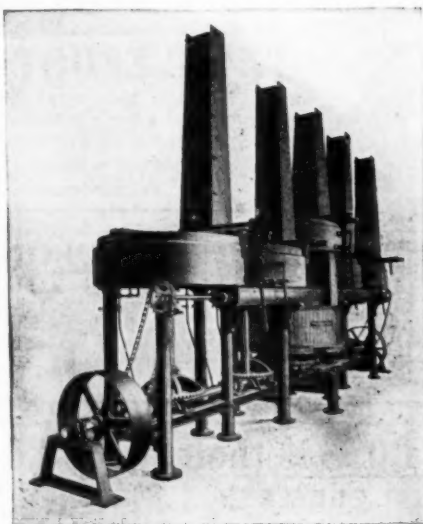
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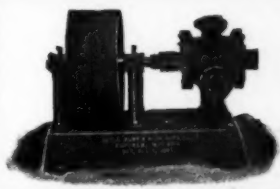
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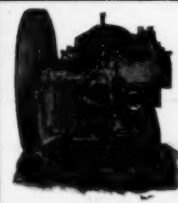
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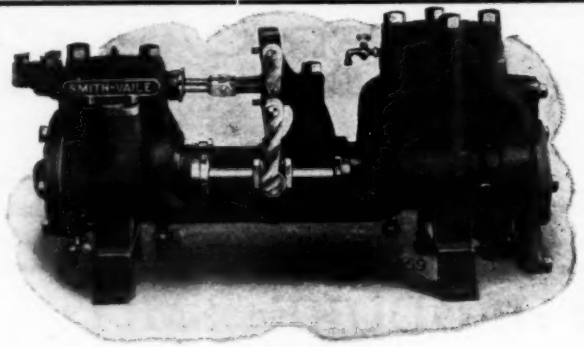
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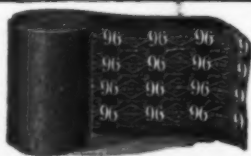
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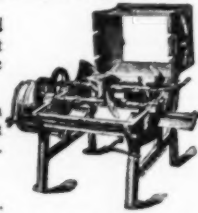


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Mechanical Mfg. Co.

Stedman Foundry & Machine Works.

BONE MILLS.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Mechanical Mfg. Co.

S. Oppenheimer & Co.

Wolf, Sayer & Heller.

BORAX AND BORACIC ACID.

Pacific Coast Borax Co.

Welch, Holme & Clark Co.

BRINE COOLERS AND AMMONIA CONDENSERS.

Creamery Package Mfg. Co.

Mechanical Mfg. Co.

Triumph Ice Machine Co.

BUTCHERS' FIXTURES AND SUPPLIES.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Clarke Bros. & Co.

Lobee Pump & Machinery Co.

S. Oppenheimer & Co.

Ottensheimer Bros.

F. R. Plumb.

Smith's Sons Co., J. M.

Wolf, Sayer & Heller.

BUTCHERS, WHOLESALE.

(See Pork and Beef Packers.)

BUTTERING.

Armour Packing Co.

Hammond Co., G. H.

Kingan & Co.

Morris & Co.

Swift & Company.

CANNING MACHINERY.

Brecht Butchers' Supply Co.

Wm. R. Perrin Co.

CANS.

American Can Co.

Brecht Butchers' Supply Co.

Heekin Can Co.

CAR TANKS.

Hamler Boiler & Tank Co.

CASH REGISTERS.

National Cash Register Co.

CASINGS (SEE ALSO PACKERS).

Bechtelstein & Co.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Davidson Commission Co.

Haberkorn Bros.

Illinois Casing Co.

Levi, Berth & Co.

Morris, Nelson & Co.

Oppenheimer & Co., S.

Ottensheimer Bros.

Schneiderberg, H.

Swift & Company.

United Dressed Beef Co.

Wolf, Sayer & Heller.

CONVEYORS.

Alvey-Ferguson Co.

Allbright-Nell Co.

Gifford-Wood Co.

Hiles, C. A., & Co.

Jeffrey Manufacturing Co.

Perrin, W. R., & Co.

CRAMPAINE.

Mumm, G. H., & Co.

Pommery.

CHEMISTS.

The Stillwell-Provisioner Analytical

and Testing Laboratory.

COMMISSION MERCHANTS, BROKERS AND EXPORTERS.

(See also European Commission Merchants.)

Aspegren & Co.

Davidson Commission Co.

Davidson, Julius.

Dummert, Henry.

Field, Julian.

Johnson, W. R., & Co.

Wheeler, T. H., & Co.

COOPERAGE.

Washburn & Co., C. G.

COTTON OIL.

American Cotton Oil Co.

Aspegren & Co.

Davidson Commission Co.

Davies Warehouse & Supply Co.

Dummert, Henry.

Kentucky Refining Co.

Louisville Cotton Oil Co.

Procter & Gamble.

Southern Cotton Oil Co.

Welch, Holme & Clark Co.

COTTONSEED OIL MACHINERY.

Buckeye Iron & Brass Works.

Platt Iron Works.

DISINFECTANTS.

Brecht Butchers' Supply Co.

Farbenfabriken of Elberfeld Co.

Wolf, Sayer & Heller.

DISINTEGRATORS.

Stedman Foundry & Machine Co.

DRYERS.

(See also Fertilizer Machinery.)

American Blower Co.

American Foundry & Machinery Co.

American Process Co.

Bartlett & Co., C. O.

Brecht Butchers' Supply Co., G. V.

Cincinnati Butchers' Supply Co.

Hamler Boiler & Tank Co.

Wm. R. Perrin & Co.

Sturtevant Co., B. F.

Smith & Sons Company, Theodore.

ELECTRIC MOTORS.

Northern Elec. Mfg. Co.

Sturtevant Co., B. F.

Triumph Ice Machine Co.

ELEVATING AND CONVEYING MACHINERY.

Alvey-Ferguson Co.

Gifford-Wood Co.

Hiles, C. A., & Co.

Jeffrey Manufacturing Co.

ENGINEERS' SPECIALTIES.

Crane Co.

Jenkins Bros.

Lunkenheimer Co.

ENGINES AND BOILERS.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Frick Co.

Lombard Iron Works.

S. Oppenheimer & Co.

Wolf, Sayer & Heller.

EUROPEAN COMMISSION MERCHANTS.

Tickle, W. W. (England).

Wall & Co., George.

EVAPORATORS.

American Foundry & Mach. Co.

EXHAUST FANS.

American Blower Co.

Sturtevant Co., B. F.

FANS AND BLOWERS.

American Blower Co.

Brecht Butchers' Supply Co.

Northern Elec. Mfg. Co.

FAT AND SKIN DEALERS.

Brand, Herman.

Page, C. S.

Royal Mfg. Co.

FERTILIZER MACHINERY.

American Process Co.

C. O. Bartlett & Snow Co.

Brecht Butchers' Supply Co., G. V.

Jeffrey Manufacturing Co.

Wm. R. Perrin & Co.

Platt Iron Works.

Lobee Pump & Machinery Co.

Smith & Sons Company, Theodore.

Stedman Foundry & Machine Works.

Thomas-Albright Co.

FUEL ECONOMIZERS.

B. F. Sturtevant Co.

FULLERS' EATHS.

Henry Newton Garrett.

GAS AND GASOLINE ENGINES.

Brecht Butchers' Supply Co., G. V.

Cincinnati Butchers' Supply Co.

Columbus Machine Co.

S. Oppenheimer & Co.

Otto Gas Engine Works.

Wolf, Sayer & Heller.

GRAPHITE PAINT.

Dixon Crucible Company, The.

GRAVITY CONVEYORS.

Alvey-Ferguson Co.

HAM BRANDERS.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Mechanical Mfg. Co.

S. Oppenheimer & Co.

Wolf, Sayer & Heller.

HAM WRAPPERS.

Brecht Butchers' Supply Co.

S. Oppenheimer & Co.

Wolf, Sayer & Heller.

HEATING AND VENTILATING APPARATUS.

American Blower Co.

Sturtevant Co., B. F.

HIDES.

Brand, Herman.

Jos. Haberman.

Page, C. S.

Royal Mfg. Co.

ICE TOOLS, ELEVATORS AND CONVEYORS.

Gifford-Wood Co.

Hiles, C. A., & Co.

INSULATING MATERIALS.

Armstrong Cork Co.

Bird, F. W., & Son.

U. S. Mineral Wool Co.

Standard Paint Co.

KETTLES.

Brecht Butchers' Supply Co., G. V.

Cincinnati Butchers' Supply Co.

Mechanical Mfg. Co.

Wm. R. Perrin & Co.

Wolf, Sayer & Heller.

KNIVES.

Hiles, C. A., & Co.

Cincinnati Butchers' Supply Co.

LABORATORY.

The Stillwell-Provisioner Analytical

Laboratory.

LARD COOLER, MIKER AND DRYER.

Allbright-Nell Co.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

John E. Smith's Sons Co.

Mechanical Mfg. Co.

Wolf, Sayer & Heller.

LARD FAULTS.

American Can Co.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Oppenheimer, S., & Co.

Wolf, Sayer & Heller.

LARD PRESSES.

Boomer & Boschert Press Co.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Hydraulic Press Mfg. Co.

Mechanical Mfg. Co.

S. Oppenheimer & Co.

Wm. R. Perrin & Co.

Wolf, Sayer & Heller.

LARD REFINERS.

(See also Pork and Beef Packers.)

The W. J. Wilcox Lard & Refg Co.

LOCKERS.

Merritt & Co.

MACHINERY FOR PACKING HOUSES.

Adt, J. B.

Allbright-Nell Co.

American Foundry & Machinery Co.

Brecht Butchers' Supply Co.

Cincinnati Butchers' Supply Co.

Davies Warehouse & Supply Co.

Hamler Boiler & Tank Co.

Leonard, C. B., & Co.

Stedman Foundry & Mach. Co.

Higbie, F. K., Co.

Hurford, O. P.

Lobee Pump & Machinery Co.

Mechanical Mfg. Co.

Oppenheimer & Co., S.

Ottensheimer Bros.

Perrin, William R., & Co.

Plumb, F. B.

